PART A

IONOSPHERIC DATA

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U. S. DEPARTMENT OF COMMERCE
NATIONAL BUREAU OF STANDARDS
CENTRAL RADIO PROPAGATION LABORATORY
BOULDER, COLORADO

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PART A

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CONTENTS

SYMBOLS, TERMINOLOGY, CONVENTIONS

Beginning with data reported for January 1952, and continuing through December 1956, the symbols, terminology, and conventions for the determination of median values used in this report (CRPL-F series) conform as far as practicable to those adopted at the Sixth Meeting of the International Radio Consultative Committee (C.C.I.R.) in Geneva, 1951. Excerpts concerning symbols and terminology from Document No. 626-E of this Meeting are given on pages 2-7 of the report CRPL-F89, "Ionospheric Data," issued January 1952. Reprints of these pages are available upon request.

Beginning with data for January 1957, the symbols used are given in NBS Report 5033, "Summary of Changes in Ionospheric Vertical Soundings, Observing and Scaling Procedures - Effective 1 January 1957," which draws upon the First Report of the Special Committee on World-Wide Ionospheric Soundings (URSI/AGI), Brussels, Sept. 2, 1956. A list of these symbols is available upon request.

In the Second Report of the Special Committee on World-Wide Ionospheric Soundings of the URSI/AGI Committee, May 1957, a new descriptive letter was introduced:

M Measurement questionable because the ordinary and extraordinary components are not distinguishable.

There was an expansion in meaning of the following:

Z (1) (qualifying letter) Measurement deduced from the third magnetoionic component.
(2) (descriptive letter) Third magnetoionic component present.

Beginning with data for January 1945, median values are published wherever possible. Where averages are reported, they are, at any hour, the average for all the days during the month for which numerical data exist.

The following conventions are used in determining the medians for hours when no measured values are given because of equipment limitations and ionospheric irregularities. Symbols used are those given above.

a. For all ionospheric characteristics:

Values missing because of A, C, F, H, L, N or R are omitted from the median count.

b. For critical frequencies and virtual heights:

Values of foF2 (and foE near sunrise and sunset) missing because of E are counted as equal to or less than the lower limit of the recorder. Values of h'F (and h'E near sunrise and sunset) missing for this reason are counted usually as equal to or greater than the median. Other characteristics missing because of E are omitted from the median count.

Values missing because of G are counted:

1. For foF2, as equal to or less than foF1.
2. For h'F2, as equal to or greater than the median.

The symbol W is included in the median count only when it replaces a height characteristic; the descriptive symbol D, only when it replaces a frequency characteristic.

Values missing for any other reason are omitted from the median count.

c. For MUF factor (M-factors):

Values missing because of G or W are counted as equal to or less than the median.

Values missing for any other reason are omitted from the median count.

d. For sporadic E (Es):

Values of fEs missing because of E or G are counted as equal to or less than the median foE, or equal to or less than the lower frequency limit of the recorder.

B for fEs is counted on the low side when there is a numerical value of a higher layer characteristic; otherwise it is omitted from the median count.

S for fEs is counted on the low side at night; during the day it is omitted from the median count (beginning with data for November 1957).

Values of fEs missing for any other reason, and values of h'Es missing for any reason at all are omitted from the median count.

Beginning with CRPL-F188, Part A, issued April 1960, the count is given for foF2 in the tables of medians. It is regretted that space limitations prevent including detailed counts for other characteristics.

To indicate further in a general manner the relative reliability of the data, for the F2 layer, h'F or foEs, if the count is from five to nine, or, for all layers, if more than half of the data used to compute the medians are doubtful (either doubtful or interpolated), the median is enclosed in parentheses. Medians are computed for less than five values for foF2 only.

Ordinarily, a blank space in the fEs or foEs column of a table is the result of the fact that a majority of the readings for the month are below the lower limit of the recorder or less than the corresponding values of foE. Blank spaces at the beginning and end of columns of h'F2 or h'F1, foF1, h'E, and foE are usually the result of diurnal variation in these characteristics. Complete absence of medians of h'F1 and foF1 is usually the result of seasonal effects.

There is no indication on the graphs of the relative reliability of the observed data; it is necessary to consult the tables for such information.

The tables may contain median values of either foEs or fEs. The graph of median Es corresponds to the table. Percentage curves of fEs are estimated from values of foEs when necessary.

The latest available information follows concerning the smoothed observed Zürich numbers beginning with the minimum of April 1954. Final numbers are listed through June 1959.

Smoothed Observed Sunspot Number

Month	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1954				3	4	4	5	7	8	8	9	12
1955	14	16	19	23	29	35	40	46	55	64	73	81
1956	89	98	109	119	127	137	146	150	151	156	160	164
1957	170	172	174	181	186	188	191	194	197	200	201	200
1958	199	201	201	197	191	187	185	185	184	182	181	180
1959	179	177	174	169	165	161	156	151	145	140	136	132
1960	128	124	120	118	115	112						

WORLD-WIDE SOURCES OF IONOSPHERIC DATA

The ionospheric data given here in tables 1 to 72 and figures 1 to 144 were assembled by the Central Radio Propagation Laboratory for analysis and correlation, incidental to CRPL prediction of radio propagation conditions. The data are median values unless otherwise indicated. The following are the sources of the data in this issue:

Republica Argentina, Ministerio de Marina:
Buenos Aires, Argentina

Commonwealth of Australia, Department of the Interior:
Macquarie I.

Commonwealth of Australia, Ionospheric Prediction Service of the Commonwealth Observatory:
Brisbane, Australia

Belgian Royal Meteorological Institute:
Lwiro (Central African Institute for Scientific Research)

Escola Politecnica, University of Sao Paulo:
Sao Paulo, Brazil

British Department of Scientific and Industrial Research, Radio Research Board:
Falkland Is.
Inverness, Scotland
Port Lockroy
Singapore, British Malaya
Slough, England

Defence Research Board, Canada:
Churchill, Canada
Ottawa, Canada
Resolute Bay, Canada
St. John's, Newfoundland
Winnipeg, Canada

Radio Wave Research Laboratories, National Taiwan University, Taipeh, Formosa, China:
Formosa, China

Czechoslovak Academy of Sciences:
Pruhonice, Czechoslovakia

General Direction of Posts and Telegraphs, Helsinki, Finland:
Nurmijarvi, Finland

The Finnish Academy of Sciences and Letters:
Sodankyla, Finland

French National Center for Telecommunications Studies:
Bangui, French Equatorial Africa
Dakar, French West Africa
Djibouti, French Somaliland
Poitiers, France
Rabat, Morocco
Tahiti, Society Is.
Tamanrasset, French West Africa
Tananarive, Madagascar

Heinrich Hertz Institute, German Academy of Sciences, Berlin:
Juliusruh/Rügen, Germany

Institute for Ionospheric Research, Lindau Uber Northeim, Hannover, Germany:
Lindau/Harz, Germany
Tsumeb, South West Africa

Ionospheric Institute, Breisach, Germany:
Freiburg, Germany

The Royal Netherlands Meteorological Institute:
De Bilt, Holland
Hollandia, Netherlands New Guinea
Paramaribo, Surinam

Geophysical and Geodetic Institute, Genoa, Italy:
Genoa (Monte Capellino), Italy

National Institute of Geophysics, City University, Rome, Italy:
Rome, Italy

General Directorate of Telecommunications, Mexico:
El Cerillo, Mexico

Telecommunication Administration, Oslo, Norway:
Svalbard, Norway

Institute of Terrestrial Magnetism, Ionosphere and Radio Propagation, Moscow, U.S.S.R.:
Moscow

South African Council for Scientific and Industrial Research:
Johannesburg, Union of South Africa

Research Institute of National Defence, Stockholm, Sweden:
Lycksele, Sweden
Upsala, Sweden

Royal Board of Swedish Telegraphs, Radio Department, Stockholm, Sweden:
Lulea, Sweden

National Bureau of Standards (Central Radio Propagation Laboratory):
Byrd Station, Antarctica
Washington, D. C.

Tabulations of Electron Density Data, Puerto Rico, September 1960, are expected to appear in CRPL-F(Part A) for February 1961.

TABLES OF IONOSPHERIC DATA

SEPTEMBER 1960 - FEBRUARY 1953

Table 1

Washington, D. C. (38.7° N, 77.1° W) — September 1960

Time	h'F2	foF2—Count		h'F	foF1	h'E	foE	foEs	(M3000)F2
00		6.0	29	285					2.70
01		5.55	28	280					2.65
02		5.3	27	200					2.70
03		4.9	27	275					2.70
04		4.3	26	280					2.75
05		4.3	26	280					2.80
06		5.3	28	260		117	1.85	1.0	3.00
07	---	7.0	29	240	---	111	2.60		3.15
08	260	0.2	29	230	---	109	3.05		3.10
09	270	0.5	29	220	---	109	3.35		3.00
10	320	9.05	30	210	---	105	3.55		2.90
11	325	9.05	30	210	4.7	105	3.70		2.80
12	355	9.45	30	205	5.0	105	3.75		2.80
13	360	9.55	30	215	5.0	107	3.70		2.75
14	340	9.55	30	220	4.7	105	3.60		2.75
15	(400)	9.5	30	230	---	109	3.40		2.75
16	---	9.15	30	235	---	109	3.15		2.85
17	---	9.2	30	245	---	113	2.65		2.85
18	---	9.15	30	250		<129	2.00		2.90
19		8.6	29	240					2.90
20		7.45	30	250					2.78
21		6.06	28	255					2.75
22		6.55	30	275					2.70
23		6.2	29	280					2.70

Time: 75.0°W.
Sweep: 1.0 Mc to 25.0 Mc in 13.5 seconds.

Table 2

Washington, D. C. (38.7° N, 77.1° W) — August 1960

Time	h'F2	foF2—Count		h'F	foF1	h'E	foE	foEs	(M3000)F2
00		5.3	30	280					2.65
01		5.0	30	300					2.70
02		4.8	29	290					2.75
03		4.3	30	290					2.70
04		4.1	27	290					2.70
05		3.7	29	300					2.80
06	---	4.75	30	260		119	2.20		3.00
07	365	5.5	31	240	4.2	111	2.70	3.1	2.92
08	360	5.8	31	220	4.4	109	(3.20)	3.4	2.90
09	410	6.1	31	220	4.7	107	3.40	3.6	2.88
10	425	6.7	30	210	5.0	107	(3.70)	3.7	2.75
11	420	6.7	31	210	5.0	109	3.90		2.70
12	435	6.6	31	210	5.0	109	4.00		2.65
13	410	6.9	31	210	5.0	107	3.90		2.70
14	410	6.6	31	220	5.0	105	3.80		2.70
15	400	6.8	31	230	4.9	105	3.60	3.7	2.75
16	405	6.8	31	230	4.8	107	3.32	3.5	2.75
17	335	6.8	31	230	4.4	109	3.00	3.2	2.80
18	270	7.15	30	250		117	2.40	2.6	2.85
19		7.2	30	265		<145	1.78	1.8	2.88
20		6.7	31	250					2.85
21		6.5	31	260				2.1	2.75
22		6.1	31	280					2.70
23		5.6	30	298					2.70

Time: 75.0°W.
Sweep: 1.0 Mc to 25.0 Mc in 13.5 seconds.

Table 3

Resolute Bay, Canada (74.7° N, 94.9° W) — June 1960

Time	h'F2	foF2—Count		h'F	foF1	h'E	foE	foEs	(M3000)F2
00	(400)	5.4	29	235	3.5	100	2.20		2.00
01	(405)	5.1	29	230	3.4	100	2.30		2.05
02	400	5.1	29	240	3.5	100	2.30		2.70
03	420	5.2	29	220	3.7	100	2.40		2.60
04	490	5.2	30	220	3.0	100	2.50		2.70
05	435	4.9	30	210	4.0	100	2.70		2.50
06	420	5.1	29	210	4.0	100	2.90		2.55
07	430	5.2	29	210	4.2	100	3.00		2.55
08	490	5.0	29	<210	4.3	100	3.10		2.45
09	515	5.0	28	200	4.4	100	3.20		2.40
10	510	5.1	29	200	4.4	100	3.30		2.40
11	500	5.3	29	200	4.5	100	3.30		2.40
12	500	5.2	29	200	4.6	100	3.30		2.40
13	480	5.4	29	200	4.6	100	3.30		2.40
14	450	5.6	25	200	4.6	100	3.30		2.60
15	430	5.6	26	200	4.5	100	3.30		2.60
16	450	5.6	20	200	4.5	100	3.20		2.55
17	500	5.4	29	205	4.5	100	3.05		2.50
18	430	5.5	29	205	4.2	100	2.95		2.60
19	380	5.5	20	210	4.0	100	2.80		2.70
20	400	5.4	28	230	4.0	100	2.60		2.70
21	410	5.6	20	230	3.0	100	2.50		2.70
22	(410)	5.2	28	230	3.6	100	2.40		2.80
23	(395)	5.3	29	240	3.5	100	2.30		2.90

Time: 90.0°W.
Sweep: 1.0 Mc to 25.0 Mc in 27 seconds.

Table 4

Sodankyla, Finland (67.4° N, 26.6° E) — June 1960

Time	h'F2	foF2—Count		h'F	foF1	h'E	foE	foEs	(M3000)F2
00		5.1	10	345		---	----	(3.5)	2.65
01		5.6	13	340		---	----	(3.3)	2.65
02		(5.6)	9	330	---	---	----	(3.6)	(2.65)
03		5.6	11	295	---	---	----	(3.7)	2.65
04		5.6	14	260	3.6	---	2.30	(3.7)	2.60
05		5.8	18	250	3.9	120	2.60	(3.7)	2.60
06		5.8	19	240	4.0	120	2.85	(3.7)	2.60
07		6.2	16	230	4.4	110	3.00	(4.0)	2.70
08		6.0	20	225	4.6	110	3.20	4.2	2.55
09		6.0	24	220	4.6	110	3.30	(4.0)	2.60
10		5.9	26	220	4.7	110	3.40	4.2	2.60
11		6.1	22	210	4.0	110	3.40	4.3	2.60
12		6.2	27	210	4.9	110	3.55	(4.2)	2.60
13		6.2	26	210	4.8	110	3.40	(4.2)	2.70
14		6.1	25	210	4.8	110	3.50	4.3	2.65
15		6.0	20	215	4.0	110	3.40	4.2	2.65
16		5.9	24	220	4.6	110	3.30	(4.1)	2.70
17		6.0	25	225	4.6	110	3.20	(4.2)	2.75
18		6.0	20	240	---	110	3.00	(3.7)	2.85
19		6.0	27	250	---	115	2.80	(3.6)	2.85
20		6.1	23	260		120	2.55	(3.4)	2.90
21		6.0	18	200		125	----	(3.7)	2.00
22		5.6	10	325		---	----	(3.6)	2.75
23		5.4	12	320				(3.5)	2.70

Time: 30.0°E.
Sweep: 1.4 Mc to 22.0 Mc in 0 minutes, automatic operation.

Table 5

Lulea, Sweden (65.6° N, 22.1° E) — June 1960

Time	h'F2	foF2—Count		h'F	foF1	h'E	foE	foEs	(M3000)F2
00		5.3	19	310			---	2.2	2.6
01		5.6	19	300		---	---	2.2	2.7
02	---	5.4	17	290	3.1	---	2.0	2.0	2.6
03	380	5.6	21	260	3.5	130	2.2		2.6
04	390	5.8	18	250	3.8	125	2.6		2.6
05	385	5.9	16	235	4.1	---	2.9		2.7
06	410	5.9	16	225	4.4	115	2.9		2.7
07	430	6.0	18	230	4.5	110	3.1		2.6
08	395	6.0	16	230	4.8	110	3.4		2.6
09	410	6.0	18	230	4.9	105	3.5		2.6
10	390	6.5	17	220	5.0	105	3.5		2.6
11	415	6.4	21	220	4.9	105	3.5		2.65
12	395	6.2	20	210	5.0	105	3.5		2.7
13	410	6.4	19	230	5.0	105	3.5		2.6
14	380	6.5	21	210	4.9	110	3.4		2.7
15	400	6.2	23	230	4.8	110	3.3		2.6
16	375	5.9	21	225	4.6	110	3.1		2.8
17	(380)	6.2	22	240	4.4	110	3.1		2.8
18	---	6.0	23	245	---	120	2.8		2.8
19		6.0	24	250		140	2.6	2.7	2.9
20		6.0	22	260		---	2.3	2.6	2.8
21		5.8	18	280		---	---	2.3	2.7
22		5.3	21	305		---	---		2.7
23		5.5	18	310			---		2.7

Time: 15.0°E.
Sweep: 0.65 Mc to 25.0 Mc in 5 minutes, automatic operation.

Table 6

Lycksele, Sweden (64.6° N, 18.0° E) — June 1960

Time	h'F2	foF2—Count		h'F	foF1	h'E	foE	fEs	(M3000)F2
00		5.4	20	320		105	1.50	3.2	2.5
01	---	5.1	29	310	----	100	1.50	3.5	2.5
02	375	5.4	20	290	2.90	100	1.70	3.4	2.4
03	370	5.4	25	265	3.30	100	2.00	3.3	2.5
04	390	5.4	24	250	3.70	100	2.30	4.2	2.5
05	395	5.5	24	240	4.00	100	2.50	4.8	2.5
06	430	5.6	24	235	4.25	100	2.90	4.3	2.5
07	425	5.8	25	220	4.45	100	3.10	5.0	2.4
08	430	5.9	25	215	4.60	100	3.25	5.0	2.4
09	435	5.8	28	220	4.85	100	3.35	5.0	2.4
10	440	5.9	27	215	5.00	100	3.50	5.0	2.5
11	430	6.0	20	210	4.95	100	3.50	5.0	2.5
12	410	6.1	27	210	5.00	100	3.50	5.0	2.5
13	420	6.2	29	215	4.90	100	3.50	3.9	2.55
14	390	6.0	28	210	4.90	100	3.40	5.0	2.6
15	425	6.2	30	215	4.90	105	3.30	4.4	2.6
16	370	6.1	30	230	4.70	105	3.20	5.0	2.6
17	350	6.1	30	230	4.55	105	3.00	4.0	2.7
18	(320)	6.0	30	240	4.25	105	2.60	4.4	2.75
19	---	6.0	29	250	----	105	2.40	3.0	2.7
20	---	6.2	29	255	----	105	2.00	4.0	2.7
21	---	5.7	27	280	----	100	1.80	3.3	2.6
22		5.4	28	300		105	1.50	3.0	2.6
23		(5.4)	25	300		110	1.55	3.0	(2.5)

Time: 15.0°E.
Sweep: 0.33 Mc to 20.0 Mc in 3 minutes.
Occasionally, 1.4 Mc to 16.0 Mc in 6 minutes, automatic operation.

Table 7

Nurmijarvi, Finland (60.5° N, 24.6° E) June 1960

Time	h'F2	foF2—Count		h'F	foF1	h'E	foE	foEs	(M3000)F2
00		(6.4)	7						(2.75)
01		(6.2)	9						(2.70)
02		(5.8)	6						(2.75)
03		5.8	13						2.80
04		5.6	14		---				2.80
05		5.9	20		---				2.75
06		6.2	19		4.2				2.70
07		6.3	20		4.3				2.80
08		6.0	19		4.5				2.75
09		6.3	21		4.8				2.75
10		7.0	19		5.0				2.80
11		6.6	20		5.0				2.80
12		6.7	24		5.0				2.75
13		7.1	18		5.0				2.80
14		6.6	21		5.0				2.75
15		6.4	26		5.0				2.75
16		6.6	26		4.8				2.85
17		6.3	29		4.4				2.85
18		6.3	27		---				2.90
19		6.4	25						2.90
20		6.5	23					4.8	3.00
21		6.5	19						2.90
22		6.0	15						2.85
23		(6.9)	8						(2.80)

Time: 30.0°E.
Sweep: 1.0 Mc to 25.0 Mc in 1 minute.

Table 8

Uppsala, Sweden (59.9° N, 17.6° E) June 1960

Time	h'F2	foF2—Count		h'F	foF1	h'E	foE	fEs	(M3000)F2
00		6.0	27	290		110	0.90	2.1	2.5
01		5.6	27	295		110	0.95	3.2	2.5
02		5.5	26	305		105	1.30	3.1	2.5
03	360	5.5	20	285	2.9	100	1.60	3.9	2.5
04	350	5.8	28	255	3.5	100	2.05	4.6	2.5
05	400	5.9	29	240	3.9	100	2.40	5.0	2.4
06	420	6.1	29	235	4.2	100	2.75	6.7	2.5
07	410	6.0	29	225	4.5	100	3.00	6.8	2.5
08	440	6.2	29	220	4.7	100	3.20	6.0	2.4
09	410	6.5	28	230	5.0	100	3.35	6.8	2.5
10	410	6.7	20	225	5.0	100	3.50	7.0	2.6
11	395	6.8	27	215	5.0	100	3.50	6.8	2.5
12	395	6.5	28	215	5.1	100	3.50	6.8	2.5
13	405	6.7	29	215	5.1	100	3.50	6.7	2.5
14	390	6.0	30	215	5.0	100	3.50	6.6	2.5
15	405	6.6	30	220	5.0	100	3.40	6.5	2.6
16	350	6.6	30	225	4.7	105	3.20	6.6	2.6
17	350	6.6	30	230	4.5	105	3.00	5.8	2.6
18	(330)	6.4	29	240	4.2	105	2.70	5.0	2.7
19	---	6.6	29	245	---	105	2.30	4.1	2.7
20	---	6.5	29	265	---	105	1.85	3.3	2.7
21	---	6.8	29	200	---	105	1.50	2.7	2.7
22		6.9	29	280		110	1.20		2.6
23		6.2	28	290		110	1.00	2.0	2.5

Time: 15.0°E.
Sweep: 0.33 Mc to 20.0 Mc in 3 minutes.
Occasionally, 1.4 Mc to 17.0 Mc in 6 minutes, automatic operation.

Table 9

Churchill, Canada (58.8° N, 94.2° W) June 1960

Time	h'F2	foF2—Count		h'F	foF1	h'E	foE	foEs	(M3000)F2
00		4.7	27	300				5.4	
01		4.7	25	300				5.1	
02		4.5	29	305		---	----	3.8	(2.75)
03		4.4	20	310		---	1.90	3.0	----
04	---	4.4	26	295	---	105	2.20	3.0	----
05	485	4.6	27	280	3.8	110	2.75	2.8	----
06	610	4.7	23	260	4.0	105	3.00	3.4	----
07	560	5.0	19	245	4.4	105	3.40		(2.70)
08	600	5.0	23	220	4.6	100	3.60		(2.50)
09	650	5.1	25	230	4.8	105	3.70		(2.60)
10	540	5.3	27	230	4.8	100	3.80		(2.60)
11	500	5.5	26	230	4.0	100	3.85		(2.50)
12	500	5.9	27	215	4.9	105	3.00		2.50
13	490	5.9	27	220	4.9	100	3.75		2.60
14	480	6.0	29	210	4.9	100	3.70		2.55
15	435	6.4	29	220	4.9	100	3.70		2.65
16	430	6.1	29	220	4.0	105	3.50		2.65
17	390	6.0	28	240	4.6	105	3.20		2.00
18	425	5.7	25	250	4.3	110	3.00		(2.70)
19	380	5.4	27	280	4.1	110	3.00	3.8	(2.80)
20	(370)	5.3	27	290	---	120	2.60	4.0	----
21		5.0	26	300		---	2.30	5.0	(3.00)
22		5.2	27	300		---	----	6.0	----
23		5.0	28	300				4.3	----

Time: 90.0°W.
Sweep: 1.0 Mc to 17.0 Mc in 16 seconds.

Table 10

Inverness, Scotland (57.4° N, 4.2° W) June 1960

Time	h'F2	foF2—Count		h'F	foF1	h'E	foE	foEs	(M3000)F2
00		6.4	30	290				<1.3	2.60
01		5.0	29	300				1.2	2.55
02		5.4	29	300				<1.6	2.50
03		5.2	20	310		125	1.50		2.55
04	---	5.4	20	280	---	130	1.90		2.60
05	(515)	5.5	26	250	3.8	115	2.35	2.6	2.60
06	360	5.8	29	250	3.9	110	2.70	2.8	2.65
07	410	5.9	28	240	4.3	110	3.00	3.0	2.60
08	410	5.9	29	230	4.6	105	3.30	3.5	2.65
09	450	6.1	28	230	4.0	105	3.50		2.60
10	400	6.3	25	230	4.8	105	3.70		2.70
11	420	6.4	28	230	(4.9)	105	3.30	3.9	2.70
12	400	6.5	20	220	(4.9)	105	3.90		2.70
13	425	6.6	27	220	(5.0)	105	3.80		2.60
14	410	6.4	29	225	4.9	105	3.70		2.70
15	430	6.6	28	240	(4.8)	105	3.60		2.70
16	400	6.4	30	230	4.8	105	3.50		2.75
17	400	6.6	27	240	4.6	110	3.20		2.75
18	(360)	6.8	27	250		110	2.90	3.1	2.80
19		>6.7	20	250		120	2.60	3.0	2.80
20		6.8	29	260		130	2.20	2.6	2.80
21		>6.7	30	260		140	1.80		2.75
22		>6.7	30	280				<1.6	2.70
23		6.7	29	285				<1.6	2.60

Time: 0.0°.
Sweep: 0.67 Mc to 25.0 Mc in 5 minutes, automatic operation.

Table 11

De Bilt, Holland (52.1° N, 5.2° E) June 1960

Time	h'F2	foF2—Count		h'F	foF1	h'E	foE	fEs	(M3000)F2
00		6.6	30	275				2.2	2.70
01		6.1	30	290					2.60
02		5.8	30	290				2.1	2.65
03		5.6	29	300				2.5	2.65
04	(370)	5.7	30	260	---	---	1.9	3.2	2.70
05	400	6.2	28	240	3.8	100	2.5	3.0	2.75
06	375	6.0	28	225	4.4	100	2.8	3.7	2.80
07	400	6.5	20	210	4.8	100	3.2	3.9	2.70
08	350	6.9	29	210	5.0	100	3.4	4.2	2.90
09	340	7.2	28	210	5.1	100	3.7	4.2	2.80
10	340	7.2	20	200	5.3	100	3.8	4.6	2.85
11	340	7.2	28	200	5.4	100	3.9	4.4	2.80
12	375	7.1	28	200	5.3	100	3.9	4.4	2.85
13	365	7.6	29	210	5.3	100	3.8	4.5	2.80
14	360	7.3	27	205	5.3	100	3.7	5.0	2.85
15	345	7.2	30	210	5.1	100	3.6	4.2	2.05
16	320	7.3	29	225	5.0	100	3.4	4.3	2.90
17	330	7.2	30	225	4.7	100	3.0	4.0	2.95
18	(300)	7.2	30	230	---	100	2.7	4.4	2.95
19	---	7.4	30	250		110	2.2	3.4	2.95
20	---	7.6	30	260		---	E	2.9	2.90
21		7.6	29	260				3.2	2.80
22		7.3	29	265				2.0	2.80
23		7.0	30	270					2.70

Time: 0.0°.
Sweep: 1.6 Mc to 16.0 Mc in 40 seconds.

Table 12

Slough, England (51.5° N, 0.6° W) June 1960

Time	h'F2	foF2—Count		h'F	foF1	h'E	foE	foEs	(M3000)F2
00		6.7	25	275				1.5	2.60
01		6.4	25	290				1.2	2.60
02		5.9	25	290				1.2	2.60
03		5.6	25	305		---	<1.10	<1.2	2.60
04	---	5.6	24	290	---	---	1.75	2.0	2.65
05	400	6.0	25	255	---	110	2.30	2.5	2.70
06	365	6.2	24	240	4.1	105	2.75	3.2	2.75
07	420	6.8	24	235	4.4	105	3.10	3.7	2.70
08	350	6.0	25	225	4.7	100	3.40	3.9	2.00
09	355	6.8	24	210	5.0	100	3.60	4.0	2.00
10	350	7.2	25	205	5.0	100	3.70	4.2	2.05
11	355	7.2	24	205	5.2	100	3.80	4.4	2.00
12	395	7.1	24	205	5.2	100	3.85	4.4	2.80
13	370	7.2	25	215	5.2	100	3.90	4.2	2.75
14	370	7.3	26	210	5.1	100	3.80	4.4	2.80
15	365	7.1	27	215	5.1	100	3.65	4.1	2.80
16	375	7.1	26	225	4.9	100	3.45	4.1	2.00
17	350	7.2	27	230	4.6	105	3.15	3.5	2.05
18	---	7.2	26	250	---	105	2.80	3.3	2.85
19		7.5	27	255		115	2.40	2.9	2.90
20		7.6	25	260		---	1.00	2.4	2.85
21		7.6	26	255		---	----	1.7	2.75
22		7.3	25	<255				1.8	2.70
23		>6.9	26	<260				<1.6	2.65

Time: 0.0°.
Sweep: 0.65 Mc to 25.0 Mc in 5 minutes, automatic operation.

Table 13

Tfuhonice, Czechoslovakia (50.0° N, 14.6° E) June 1960

Time	h'F2	foF2—Count		h'F	foF1	h'E	foE	foEs	(M3000)F2
00		6.5	28	280				1.0	
01		6.2	20	275				1.6	
02		5.8	29	205				1.3	
03	---	5.6	20	200	---	100	1.5	2.0	
04	330	6.1	28	250	3.6	105	2.1	2.4	
05	370	6.4	28	240	4.2	100	2.7	3.2	
06	355	6.0	27	230	4.8	100	3.0	3.9	
07	340	7.5	25	220	5.0	100	3.3	4.1	
08	350	7.4	24	215	5.1	95	3.5	4.4	
09	350	7.6	19	220	5.2	95	3.6	4.2	
10	345	7.5	21	215	5.2	95	3.7	4.4	
11	370	7.4	24	215	5.4	100	3.0	4.4	
12	360	7.4	21	215	5.3	100	3.8	4.3	
13	360	7.4	26	215	5.3	100	3.7	4.0	
14	350	7.4	25	220	5.2	100	3.6	4.0	
15	330	7.4	27	220	5.0	100	3.3	4.0	
16	315	7.4	27	220	4.6	100	3.1	3.6	
17	290	7.2	25	245	4.0	100	2.0	4.2	
18	---	7.4	26	260	---	110	2.1	3.3	
19		7.4	29	260		---	1.5	3.0	
20		7.4	29	265				3.1	
21		7.4	28	270					
22		7.0	28	275					
23		6.9	29	290					

Time: 0.0°.
Sweep: 1.0 Mc to 18.0 Mc.

Table 14

Winnipeg, Canada (49.9° N, 97.4° W) June 1960

Time	h'F2	foF2—Count		h'F	foF1	h'E	foE	foEs	(M3000)F2
00		5.0	20	310				2.8	2.80
01		4.5	22	320				3.0	(2.65)
02		4.2	19	315				3.0	(2.70)
03		4.0	19	305				2.5	(2.70)
04		3.9	26	300		---	----	2.0	(2.00)
05	(400)	4.4	25	200	3.1	120	2.00		2.80
06	G	4.7	25	250	3.0	110	2.60		2.55
07	500	5.0	25	240	4.1	105	3.00		2.50
08	510	5.0	26	220	4.4	100	3.20		2.60
09	500	5.2	29	220	4.5	100	3.45		2.50
10	500	5.4	26	215	4.7	100	3.50		2.50
11	530	5.5	26	220	4.0	100	3.80		G
12	575	5.5	24	210	4.9	100	3.80		G
13	510	5.6	26	220	4.9	100	3.80		2.50
14	480	5.9	27	220	5.0	100	3.80		2.50
15	450	6.1	27	220	4.9	100	3.65		2.70
16	450	6.2	29	220	4.0	105	3.50		2.70
17	410	6.4	30	220	4.7	105	3.30		2.65
18	365	6.4	28	235	4.4	110	3.00		2.70
19	320	6.4	28	250	3.9	110	2.60		2.75
20	---	6.7	27	200		130	2.00		2.80
21		6.2	25	280		---	----		2.75
22		5.6	22	300					2.75
23		5.0	22	290				2.4	2.75

Time: 90.0°W.
Sweep: 1.6 Mc to 20.0 Mc in 15 seconds.

Table 15

St. John's, Newfoundland (47.6° N, 52.7° W) June 1960

Time	h'F2	foF2—Count		h'F	foF1	h'E	foE	foEs	(M3000)F2
00		5.2	21	208					2.60
01		5.2	20	275					2.70
02		4.4	21	290					2.60
03		3.8	22	290					2.65
04	---	4.3	22	275	---	110	2.00		2.80
05	(410)	4.7	22	246	3.9	110	2.60		2.80
06	565	5.2	23	239	4.2	105	3.00		2.65
07	470	5.7	22	234	4.4	100	3.30		2.75
08	440	5.9	22	222	4.8	100	3.60		2.75
09	430	6.0	22	215	4.9	100	3.70		2.70
10	400	6.2	23	222	5.0	100	3.90		2.70
11	435	6.2	24	216	5.2	100	3.95		2.70
12	410	6.7	24	219	5.1	100	3.90		2.70
13	420	6.6	24	219	5.1	100	3.90		2.60
14	375	6.8	24	214	5.0	100	3.70		2.80
15	395	6.8	24	222	5.0	105	3.60		2.70
16	370	7.0	24	230	4.8	110	3.30		2.75
17	330	7.1	24	240	---	110	3.00		2.75
18	---	7.5	24	260		120	2.60	3.4	2.75
19		7.3	24	270		125	----	3.2	2.75
20		7.7	24	269					2.70
21		7.4	23	260					2.65
22		7.0	22	280					2.60
23		5.7	23	300					2.60

Time: 60.0°W.
Sweep: 1.0 Mc to 25.0 Mc in 27 seconds.

Table 16

Ottawa, Canada (45.4° N, 75.9° W) June 1960

Time	h'F2	foF2—Count		h'F	foF1	h'E	foE	foEs	(M3000)F2
00		5.6	26	300					(2.85)
01		4.0	26	295					----
02		4.0	27	300					----
03		4.0	26	300				2.7	----
04		3.7	27	305					----
05	---	4.2	29	260	---	120	2.0		3.00
06	450	4.7	30	240	4.0	110	2.7		(2.90)
07	495	5.0	29	230	4.3	110	3.1		2.70
08	495	5.2	30	215	4.6	110	3.4	3.6	2.50
09	490	5.5	29	210	4.8	105	3.6		2.75
10	510	5.6	29	205	4.9	105	3.9		(2.80)
11	460	6.0	30	200	5.0	100	3.9		(2.80)
12	460	6.0	30	200	5.0	100	4.0		2.70
13	490	6.0	30	210	5.0	100	3.9	4.0	2.60
14	490	6.2	30	210	5.0	105	3.9		2.80
15	410	6.5	29	215	5.0	105	3.7		2.80
16	390	6.6	30	220	4.8	105	3.5		2.80
17	370	7.0	30	230	4.6	110	3.0		2.80
18	345	7.1	30	245	(4.1)	110	2.7	3.3	2.90
19	---	7.0	30	270	---	110	2.1	2.4	2.90
20		7.0	28	270		---	1.6		2.85
21		7.0	29	270					(2.80)
22		6.5	27	290					(2.80)
23		5.8	26	295					(2.80)

Time: 75.0°W.
Sweep: 1.0 Mc to 20.0 Mc in 16 seconds.

Table 17

Genoa (Monte Capellino), Italy (44.6° N, 9.0° E) June 1960

Time	h'F2	foF2—Count		h'F	foF1	h'E	foE	foEs	(M3000)F2
00		7.8	30	310				2.6	
01		7.8	27	310				3.0	
02		7.4	27	305				2.0	
03		7.1	29	305				2.4	
04		6.6	27	305				2.4	
05		6.6	29	295			1.7	2.6	
06		6.9	30	260			2.3	2.8	
07		7.9	29	250			2.0	3.0	
08		0.4	27	240			3.2	4.2	
09		8.4	27	230			3.5	4.4	
10		8.4	28	230			3.6	4.6	
11		0.6	28	225			3.7	5.0	
12		8.6	28	220			3.8	5.0	
13		0.2	30	225			3.0	5.0	
14		8.6	30	230			3.7	4.4	
15		8.5	29	230			3.6	4.4	
16		0.2	29	235			3.4	4.6	
17		0.4	27	250			3.2	4.6	
18		8.3	27	250			2.9	4.4	
19		0.8	28	275			2.3	3.0	
20		0.7	26	275			1.0	4.3	
21		0.4	29	280				3.4	
22		0.6	30	300				3.3	
23		0.1	30	310				3.7	

Time: 15.0°E.
Sweep: 1.0 Mc to 20.0 Mc in 5 minutes, automatic operation.

Table 18

Rome, Italy (41.8° N, 12.5° E) June 1960

Time	h'F2	foF2—Count		h'F	foF1	h'E	foE	foEs	(M3000)F2
00		(0.2)	25	300				3.3	(2.65)
01		(7.9)	24	300				2.7	(2.65)
02		(7.0)	23	300				3.5	(2.65)
03		(6.7)	21	290				3.1	2.60
04		(6.4)	24	300				2.6	(2.60)
05		6.6	26	270		130	1.8	3.3	2.70
06	---	7.7	26	250	---	120	2.5	3.6	2.70
07	---	(8.3)	19	250	---	110	3.0	4.2	(2.75)
08	---	(0.0)	19	240	---	110	3.4	4.5	(2.85)
09	---	(0.4)	24	240	---	110	3.6	5.1	(2.70)
10	---	9.0	22	(240)	---	110	3.7	5.8	2.80
11	(370)	9.4	22	210	5.4	110	3.0	5.4	2.75
12	360	9.1	23	210	5.4	110	3.9	4.0	2.75
13	(340)	0.9	24	220	(5.3)	110	3.0	4.5	2.70
14	350	9.2	22	220	(5.6)	110	3.7	4.5	2.75
15	(320)	0.0	25	230	(5.0)	110	3.7	4.5	2.80
16	(350)	0.4	26	240	5.0	110	3.5	4.6	2.85
17	---	0.4	21	250	---	110	3.2	4.0	2.90
18		8.6	24	250		120	2.7	4.5	2.90
19		8.8	24	280		130	2.0	4.6	2.90
20		(0.8)	19	260				4.4	(2.05)
21		(0.5)	25	270				4.4	(2.65)
22		(8.5)	21	290				4.0	(2.65)
23		0.4	17	290				3.7	2.60

Time: 15.0°E.
Sweep: 1.4 Mc to 15.0 Mc in 5 minutes, automatic operation.

Table 19

Formosa, China (25.0° N, 121.5° E) June 1960

Time	h'F2	foF2—Count		h'F	foF1	h'E	foE	foEs	(M3000)F2
00		9.7	23	280				(3.7)	(2.90)
01		9.1	27	250				(3.1)	3.10
02		8.0	27	235				(2.2)	3.00
03		7.3	26	250				(2.3)	2.90
04		6.6	21	255				(2.0)	2.90
05		6.4	22	275				1.8	2.90
06		7.6	30	235		---		3.0	3.20
07	---	8.2	30	225		<100	---	4.0	3.25
08	---	8.0	30	<230	---	101	---	(6.0)	2.95
09	---	8.6	30	(215)	(5.6)	101	---	(5.6)	2.80
10	380	(9.3)	28	(215)	(5.7)	(101)	---	(6.6)	(2.70)
11	375	>10.0	29	(225)	(5.7)	(101)	---	(6.6)	(2.70)
12	360	>10.9	29	(225)	(5.6)	<103	---	(5.3)	2.70
13	350	12.2	28	(225)	5.6	101	---	(5.1)	2.75
14	335	12.6	29	<235	(5.6)	<105	---	4.9	2.85
15	335	13.4	29	(215)	(5.6)	101	---	4.4	2.85
16	310	(13.6)	29	(230)	---	<106	---	(5.0)	2.95
17	285	(13.5)	30	(230)		<111	---	(4.6)	(2.95)
18	(260)	12.2	30	245		---		(4.6)	2.95
19		(11.1)	28	<270				(4.2)	(2.90)
20		>9.4	30	280				(3.4)	2.75
21		>9.2	30	290				(2.7)	(2.65)
22		>9.0	28	295				(2.7)	2.75
23		>8.9	26	300				(3.2)	2.80

Time: 120.0°E.
Sweep: 1.0 Mc to 25.0 Mc in 27 seconds.

Table 20

El Cerillo, Mexico (19.3° N, 99.5° W) June 1960

Time	h'F2	foF2—Count		h'F	foF1	h'E	foE	foEs	(M3000)F2
00		9.0	30	290				2.3	2.00
01		8.6	29	270				2.1	2.90
02		7.8	29	260				2.4	2.95
03		7.4	29	250				2.8	2.90
04		6.9	28	255				2.3	2.95
05		6.4	29	260				2.8	2.90
06		6.0	29	270		---	----	2.4	2.90
07	---	7.1	30	240		109	2.40	3.0	2.95
08	---	8.2	30	220		103	3.00	3.7	2.90
09	(420)	8.9	30	210	5.0	103	3.40	4.0	2.60
10	370	9.3	29	200	5.3	103	3.60	4.4	2.60
11	380	10.1	30	200	5.5	103	3.80	3.8	2.60
12	380	11.0	28	200	5.6	103	3.90	4.2	2.60
13	360	11.0	28	210	5.4	103	4.00	4.3	2.65
14	360	11.2	29	220	5.6	103	3.90	4.4	2.70
15	350	11.4	30	220	5.4	103	3.70	4.2	2.70
16	350	11.0	29	235	5.0	103	3.50	4.4	<2.80
17	(370)	11.0	30	230	4.8	103	3.10	3.8	2.90
18		10.4	30	250		106	2.50	4.1	2.90
19		10.0	29	265				4.5	2.90
20		9.8	30	260				3.3	2.90
21		9.4	29	260				3.0	<2.90
22		9.0	30	280				2.6	2.80
23		8.9	30	295				2.6	2.80

Time: 90.0°W.
Sweep: 1.0 Mc to 25.0 Mc in 10 seconds.

Table 21

Singapore, British Malaya (1.3° N, 103.8° E) June 1960

Time	h'F2	foF2—Count		h'F	foF1	h'E	foE	foEs	(M3000)F2
00		10.4	27	220				3.4	3.10
01		8.6	28	220				3.0	3.25
02		6.2	29	230				2.0	3.15
03		5.2	30	235				1.6	3.10
04		4.5	29	230					3.15
05		3.4	30	240					3.10
06	---	5.4	30	275	---	110	1.35	1.8	2.95
07	---	9.5	30	250	---	115	2.60		3.00
08	---	11.9	28	235	---	110	3.20		2.95
09	---	13.4	29	220	---	105	3.60	3.0	2.90
10	305	14.0	28	210	5.5	105	3.85		2.70
11	410	13.3	20	205	(5.3)	105	4.00		2.35
12	325	13.0	28	205	5.6	105	4.05		2.30
13	300	12.4	29	210	(5.2)	105	(4.00)		2.30
14	---	12.3	30	205	---	105	3.85	4.2	2.25
15	---	12.3	30	210	---	105	3.60	4.3	2.35
16	---	12.2	28	230	---	110	3.15	3.9	2.35
17	---	12.4	29	245	---	110	2.60	3.1	2.50
18	---	12.9	29	260	---	---	----	2.9	2.60
19		13.0	28	265				2.9	2.70
20		>13.0	26	260				2.6	2.75
21		13.1	27	245				2.8	2.90
22		12.2	28	215				3.8	2.95
23		>11.5	27	225				3.0	3.05

Time: 105.0°E.
Sweep: 0.67 Mc to 25.0 Mc in 5 minutes, automatic operation.

Table 22

Brisbane, Australia (27.5° S, 152.9° E) June 1960

Time	h'F2	foF2—Count		h'F	foF1	h'E	foE	foEs	(M3000)F2
00		4.6	13	250				2.0	2.75
01		4.4	13	280				2.1	2.80
02		4.4	15	270				2.1	2.75
03		4.3	15	290				2.1	2.80
04		4.4	14	265					2.80
05		4.1	12	260				2.1	2.85
06		4.1	14	250			<1.70		2.80
07		7.2	15	240			2.20		3.20
08		8.3	14	235			2.60		3.35
09		9.6	16	230			3.05	3.2	3.25
10		9.7	16	230			3.35	3.6	3.25
11		9.6	19	230			3.50	3.7	3.15
12		9.8	18	230			3.50	3.7	3.10
13		9.3	10	230			3.40	3.0	3.00
14		10.1	17	240			3.30	4.3	2.95
15		10.0	14	240			(3.15)	3.6	3.05
16		9.9	15	240			(2.50)	3.8	3.05
17		9.2	16	230			1.85	2.6	3.05
18		7.4	16	225			<1.70	2.8	2.95
19		5.7	16	240				2.9	2.85
20		4.9	15	250				2.2	2.75
21		4.7	16	275				3.0	2.75
22		4.8	16	260				2.1	2.80
23		4.6	15	250				2.5	2.80

Time: 150.0°E.
Sweep: 1.0 Mc to 16.0 Mc in 1 minute 55 seconds.

Table 23

Falkland Is. (51.7° S, 57.8° W) June 1960

Time	h'F2	foF2—Count		h'F	foF1	h'E	foE	foEs	(M3000)F2
00		2.8	24	<375				(1.6)	(2.45)
01		2.8	28	(340)				1.5	2.45
02		2.8	27	350					2.45
03		2.8	27	320					2.55
04		2.8	25	300					2.70
05		2.8	25	290					2.70
06		2.6	22	275					2.65
07		2.9	17	280		---	E		(2.75)
08		5.5	21	220		120	E	2.0	----
09		7.2	26	220		125	2.05	(2.6)	3.45
10		8.4	18	220		120	----	(3.5)	3.45
11		8.9	23	220		115	----	(3.7)	3.60
12		9.6	21	220		115	----	(3.7)	3.50
13		8.4	22	220		115	2.75	3.0	3.55
14		7.9	23	220		125	----	2.8	3.50
15		7.8	20	220		130	2.10	2.3	(3.50)
16		5.9	16	210		150	E	1.7	
17		4.4	17	210			----	(1.7)	----
18		3.8	24	235				(1.7)	3.30
19		3.1	15	235				1.4	(3.15)
20		2.6	21	245				(1.7)	(3.00)
21		2.6	24	300				(1.7)	2.70
22		2.5	26	<300				(1.5)	2.50
23		2.6	27	---				(1.4)	2.45

Time: 60.0°W.
Sweep: 0.67 Mc to 25.0 Mc in 5 minutes, automatic operation.

Table 24

Moscow, U.S.S.R. (55.5° N, 37.3° E) May 1960

Time	h'F2	foF2—Count		h'F	foF1	h'E	foE	foEs	(M3000)F2
00		5.8	29	290			----	<1.4	2.65
01		5.3	31	290			----	<1.1	2.60
02		5.1	29	290			E		2.65
03	---	5.0	31	300			1.30		2.70
04	---	5.5	31	265	(3.2)		1.90	1.9	2.75
05	340	6.2	31	250	3.9		2.40	2.4	2.80
06	340	6.9	31	235	4.3		2.80	3.0	2.80
07	350	7.3	31	225	4.5		3.00	3.4	2.75
08	350	7.7	31	225	4.8		3.30	3.7	2.80
09	340	8.2	31	220	5.0		3.40	4.0	2.80
10	325	9.0	31	220	5.0		3.50	3.9	2.80
11	335	8.6	31	210	5.0		3.60	3.8	2.80
12	325	8.4	31	215	5.1		3.60	3.7	2.80
13	335	8.1	31	220	5.0		3.50		2.80
14	345	7.7	31	220	5.0		3.40	3.4	2.80
15	335	7.6	31	225	4.7		3.20	3.2	2.90
16	300	7.7	31	230	4.5		3.00		2.90
17	305	7.6	31	240	4.2		2.00	3.1	2.90
18	280	7.8	31	250	---		2.40	2.9	2.95
19	---	8.1	31	255	---		1.75	2.5	2.90
20		7.6	31	250			1.25	2.3	2.90
21		7.2	31	250			E	1.7	2.85
22		6.6	31	260				<1.5	2.80
23		6.1	31	280				<1.4	2.65

Time: 30.0°E.
Sweep: 1.0 Mc to 25.0 Mc in 15 seconds.

Table 25

Pruhonice, Czechoslovakia (50.0° N, 14.6° E) May 1960

Time	h'F2	foF2—Count		h'F	foF1	h'E	foE	foEs	(M3000)F2
00		6.2	26	300					
01		6.0	26	290					
82		5.8	27	290					
03		5.4	27	300		100	1.6	1.4	
04	---	5.7	27	250	---	110	2.0	2.0	
05	---	6.1	26	240	---	100	2.5	2.8	
06	370	7.2	24	230	4.6	100	3.0	3.4	
07	335	7.8	24	220	4.8	100	3.2	3.8	
08	320	8.3	24	215	5.0	100	3.4	3.9	
09	325	8.6	24	210	5.0	100	3.5	4.3	
10	350	8.6	23	210	5.3	100	3.6	4.2	
11	330	8.6	25	205	5.1	100	3.8	4.1	
12	320	8.4	25	210	5.2	100	3.7	3.9	
13	330	8.5	23	210	5.1	100	3.7	3.8	
14	330	8.3	24	225	5.1	100	3.4		
15	320	8.4	23	225	4.9	100	3.2	3.3	
16	300	8.3	25	245	4.5	100	3.1	3.5	
17	---	8.6	25	250		100	2.5	3.5	
18		9.2	25	250		110	2.0	2.8	
19		8.6	24	245		---	---	2.4	
20		8.1	25	250		---	---		
21		7.2	24	250					
22		6.8	25	270					
23		6.5	26	290					

Time: 0.0°.
Sweep: 1.0 Mc to 18.0 Mc.

Table 26

Formosa, China (25.0° N, 121.5° E) May 1960

Time	h'F2	foF2—Count		h'F	foF1	h'E	foE	foEs	(M3000)F2
00		>10.8	27	260				(2.7)	3.00
01		10.3	29	245				(2.6)	3.05
02		8.7	20	230				(2.4)	3.15
83		8.0	27	245				(2.2)	3.05
04		7.2	27	235				1.8	3.05
05		6.7	26	250		---	----	1.9	3.00
06		7.7	31	230		<116	----	3.0	3.20
07	---	8.6	30	220		<107	----	3.9	3.25
08	---	9.2	29	(220)	---	(103)	----	(4.9)	3.00
09	(310)	9.8	30	210	---	101	----	(6.2)	2.80
10	(330)	10.7	31	(210)	---	(101)	----	(6.1)	2.75
11	330	12.4	31	(220)	(5.9)	<109	----	(5.6)	2.80
12	330	13.2	30	(220)	---	<107	----	5.3	2.85
13	330	14.2	30	(220)	---	105	----	4.8	2.85
14	325	14.7	30	(215)	(5.5)	<104	----	4.4	2.95
15	310	15.2	31	(220)	---	<109	3.60	4.2	2.95
16	295	15.0	30	220	---	(105)	3.25	4.0	3.00
17	270	15.1	31	(230)	---	<111	2.80	3.5	3.00
18	---	14.8	31	250				(3.2)	3.05
19		12.8	29	250				(3.2)	(3.00)
20		>10.5	30	260				(3.0)	(2.90)
21		11.3	31	280				(3.3)	2.75
22		>10.2	31	285				(3.4)	(2.80)
23		>10.6	31	280				(2.9)	2.80

Time: 120.0°E.
Sweep: 1.0 Mc to 25.0 Mc in 27 seconds.

Table 27

Pruhonice, Czechoslovakia (50.0° N, 14.6° E) December 1959

Time	h'F2	foF2—Count		h'F	foF1	h'E	foE	foEs	(M3000)F2
00		3.4	28	320					
01		3.4	26	300					
02		3.4	26	295					
03		3.2	28	270					
04		3.2	26	255					
05		3.0	23	260					
06		3.2	25	250		---	---		
07		6.3	26	215		---	2.0		
08		9.0	27	210		110	2.3		
09		10.8	24	220		105	2.6		
10		11.5	25	228		105	2.8		
11		11.0	25	220		100	3.0		
12		11.1	25	215		105	3.0		
13		11.0	24	220		105	2.6		
14		10.2	26	210		110	2.3		
15		9.3	27	210		---	2.0		
16		8.4	26	200					
17		6.0	25	<215					
18		4.8	28	225					
19		4.0	25	250					
20		3.5	28	270					
21		3.5	24	290					
22		3.3	27	300					
23		3.4	28	300					

Time: 0.0°.

Table 28

Svalbard, Norway (78.2° N, 15.7° E) June 1959

Time	h'F2	foF2—Count		h'F	foF1	h'E	foE	foEs	(M3000)F2
00	(540)	5.0	17	250	3.95	100	2.60	3.4	2.45
01	490	5.5	23	245	3.85	105	2.55	3.2	2.40
02	515	5.2	20	240	3.90	105	2.65	3.2	2.35
03	515	4.9	16	250	4.00	105	2.80		2.30
04	520	5.6	24	240	4.00	110	2.90	3.1	2.40
05	630	<5.0	20	240	4.10	110	3.15		2.10
06	560	5.4	16	250	4.30	110	3.20		2.25
07	560	6.0	17	250	4.45	110	3.35		2.30
08	500	6.4	20	240	4.80	110	3.45	3.4	2.35
09	450	6.7	23	240	4.75	110	3.45	3.4	2.40
10	480	6.5	23	220	4.80	105	3.45		2.45
11	490	6.6	21	225	4.80	105	3.35	3.4	2.55
12	550	6.3	15	220	4.90	100	3.35		2.40
13	490	6.3	21	215	4.90	110	3.40		2.40
14	495	6.0	16	215	4.80	110	3.20	3.2	2.45
15	495	6.3	19	220	4.80	110	3.25		2.55
16	505	6.3	20	230	4.70	100	3.20	3.6	2.55
17	480	6.2	23	240	4.70	110	3.15	4.4	2.55
18	(540)	6.3	21	245	4.40	110	2.95	4.8	2.55
19	(540)	6.1	22	250	4.30	110	2.85	5.9	2.55
20	---	5.9	10	250	4.15	110	2.75	7.2	2.55
21	(615)	5.7	20	250	4.10	100	2.70	4.4	2.55
22	495	5.4	22	260	3.80	110	2.60	3.3	2.50
23	(460)	5.1	23	250	4.00	105	2.55	4.0	2.55

Time: 15.0°E.
Sweep: 0.60 Mc to 24.6 Mc in 5 minutes, automatic operation.

Table 29

Byrd Station (80.0° S, 120.0° W) June 1959

Time	h'F2	foF2—Count		h'F	foF1	h'E	foE	foEs	(M3000)F2
00		>5.2	16	350		---	---		----
01		>5.0	12	<360		---	---	2.7	
02		(6.0)	9	<365		---	---	2.5	----
03		>5.0	15	330				4.2	----
04		(5.3)	11	310				3.4	----
05		(3.0)	5	<290				3.0	----
06		>5.0	8	<300					----
07		(4.2)	8	<300					----
08		>3.25	8	<310					----
09		(4.4)	7	(370)					----
10		3.1	16	315					(2.80)
11		(2.7)	8	290					----
12		(3.0)	9	275					----
13		(2.7)	8	<290				2.7	----
14		>4.5	9	375		---	---	3.0	(2.60)
15		>5.0	5	350		---	---	3.0	----
16		>3.85	8	350		---	---	4.0	----
17		(4.5)	7	320				3.0	----
18		>3.5	11	320				3.6	----
19		>4.5	15	(330)				4.5	
20		>5.0	9	310				4.4	
21		>6.0	9	320		---	---		----
22		(5.3)	11	330				3.0	
23		>7.0	11	<320					----

Time: 120.0°W.
Sweep: 1.0 Mc to 25.0 Mc in 13.5 seconds.

Table 30

Lindau/Harz, Germany (51.6° N, 10.1° E) May 1959

Time	h'F2	foF2—Count		h'F	foF1	h'E	foE	fEs	(M3000)F2
00		7.32	31	300					2.48
01		7.02	28	316					2.43
02		6.75	28	313					2.44
03		6.17	29	312				2.0	2.45
04		6.16	30	319		---	E	2.1	2.46
05	---	6.48	30	289	----	113	2.03	2.8	2.62
06	---	7.08	30	256	----	110	2.56	3.4	2.70
07	(470)	7.50	30	243	4.52	107	3.04	4.0	2.67
08	(506)	8.20	31	233	5.10	103	3.32	4.4	2.68
09	423	8.74	30	232	5.35	102	3.56	4.6	2.60
10	416	9.04	28	221	5.50	102	3.70	4.8	2.62
11	418	9.02	30	226	5.76	102	3.82	4.9	2.60
12	406	9.24	30	221	5.78	103	3.86	4.6	2.57
13	411	9.24	30	226	5.00	103	3.88	4.8	2.60
14	409	9.14	30	232	5.85	104	3.85	4.6	2.60
15	394	9.02	30	232	5.60	104	3.73	4.6	2.63
16	(416)	8.90	31	238	5.50	104	3.52	4.3	2.66
17	---	8.85	31	249	----	105	3.24	4.4	2.70
18		9.05	31	251		106	2.84	4.1	2.72
19		9.05	31	264		110	2.34	3.5	2.74
20		8.95	31	267		---	----	3.0	2.74
21		8.60	31	266		---	E	2.6	2.65
22		8.00	31	272				2.2	2.54
23		7.60	31	291					2.47

Time: 15.0°E.
Sweep: 1.0 Mc to 16.0 Mc in 4 minutes.

Table 31

Pruhonice, Czechoslovakia (50.0° N, 14.6° E) May 1959

Time	h'F2	foF2—Count		h'F	foF1	h'E	foE	foEs	(M3000)F2
00		6.9	25	320					
01		6.6	26	310					
02		6.0	27	315					
03	---	6.1	26	320	---	---	---		
04	---	6.6	25	275	---	125	2.0		
05	---	7.2	24	250	---	110	2.7		
06	340	8.2	21	240	5.0	105	3.1		
07	350	8.6	22	240	5.3	100	3.4	3.9	
08	350	8.9	23	230	5.6	105	3.6	2.7	
09	370	9.4	24	225	5.8	110	3.8	2.9	
10	380	9.4	23	230	6.0	110	3.9	4.1	
11	375	9.3	26	225	6.0	110	4.0		
12	370	9.6	25	230	5.9	115	4.0	4.2	
13	380	9.2	25	230	5.9	115	3.9	4.0	
14	360	8.9	25	230	5.7	110	3.8	4.0	
15	385	8.9	23	245	5.3	110	3.5	3.7	
16	---	8.9	25	250	---	105	3.1	4.0	
17	---	8.9	24	255	---	110	2.7	4.1	
18		9.0	21	275		125	2.0	3.1	
19		8.6	19	270				2.3	
20		8.3	21	270					
21		7.8	22	275					
22		7.7	23	300					
23		7.3	26	325					

Time: 0.0°.

Table 32

El Cerillo, Mexico (19.3° N, 99.5° W) May 1959

Time	h'F2	foF2—Count		h'F	foF1	h'E	foE	foEs	(M3000)F2
00		9.0	30	280					2.70
01		9.0	30	270					2.80
02		8.8	31	260					2.75
03		8.2	31	250					2.85
04		7.5	31	250					2.75
05		7.0	30	260					2.70
06		6.8	30	280					2.65
07		8.2	30	230					2.90
08		9.5	30	220					2.90
09		10.4	31	210					2.65
10		11.0	30	210					2.60
11		11.6	29	200					2.60
12		12.3	26	210					2.60
13		12.9	26	210					2.60
14		13.0	25	215					2.60
15		12.6	24	210					2.65
16		12.4	24	220					2.70
17		11.8	24	225					2.70
18		11.4	26	240					2.70
19		11.0	26	250					2.70
20		10.4	28	250					2.70
21		10.0	29	260					2.65
22		9.5	29	280					2.65
23		9.3	29	290					2.65

Time: 90.0°W.
Sweep: 1.0 Mc to 25.0 Mc in 18 seconds.

Table 33

Dakar, French W. Africa (14.8° N, 17.4° W) May 1959

Time	h'F2	foF2—Count		h'F	foF1	h'E	foE	foEs	(M3000)F2
00		(6.5)	3	390		---	----	3.0	----
01		(6.2)	4	360		---	----	3.1	----
02		(5.2)	4	340		---	----	3.1	(2.35)
03		6.4	11	295		---	----	3.0	(2.85)
04		6.6	20	<270		---	----	3.0	2.70
05		5.9	24	250		---	E	3.0	2.90
06		5.4	25	250		---	E	3.0	2.75
07		6.8	28	250		---	1.80	3.9	3.05
08		8.6	28	240		115	2.90	6.4	3.10
09		10.0	26	230		115	3.45	6.7	2.90
10		11.0	28	225		110	3.80	5.2	2.65
11	---	12.2	29	220		105	4.05	4.8	2.65
12	---	13.2	30	220		100	4.20	4.6	2.60
13	---	14.0	31	215		100	4.20	4.5	2.55
14	---	14.5	31	205		100	4.20	4.4	2.55
15	---	15.0	31	215		105	4.10	4.3	2.55
16	---	15.0	31	225		105	3.80	4.3	2.50
17		15.0	31	230	---	110	3.50	3.9	2.50
18		14.3	29	250		115	3.00	3.8	2.55
19		13.4	30	270		125	2.15	3.6	2.50
20		12.6	17	340				2.7	(2.30)
21		10.9	13	445				2.6	(2.30)
22		(8.2)	6	440				2.4	(2.25)
23		(7.5)	5	415				2.5	(2.30)

Time: 0.0°.
Sweep: 1.2 Mc to 17.0 Mc.

Table 34

Djibouti, French Somaliland (11.6° N, 43.2° E) May 1959

Time	h'F2	foF2—Count		h'F	foF1	h'E	foE	foEs	(M3000)F2
00		----	0	(340)				2.0	
01		(7.2)	2	(290)				2.0	----
02		(7.6)	2	(285)				1.9	----
03		(6.8)	2	250		---	----	1.9	----
04		----	0	240		---	----	1.9	
05		(6.7)	7	230		---	----	1.8	(3.10)
06		8.0	12	270		155	1.80	2.0	2.90
07		10.5	19	255		110	2.85	3.6	2.80
08		11.4	22	245		110	3.40	4.0	2.70
09		12.4	23	235		---	3.75	6.6	2.45
10		12.4	24	230		---	4.05	9.4	2.25
11	---	12.4	23	230	---	---	4.20	8.2	2.20
12	---	12.3	27	225	---	---	4.20	9.5	2.15
13	---	12.3	27	225	---	---	4.20	7.0	2.15
14	---	11.9	26	230	---	---	4.15	7.0	2.15
15	---	12.4	18	235		---	3.85	6.7	2.15
16	---	12.4	12	240		---	3.50	6.5	2.20
17		(11.4)	5	255		---	3.00	4.5	(2.15)
18		(12.6)	1	290		125	2.05	3.6	----
19		(10.8)	6	385		---	E		(2.00)
20		(9.0)	3	---		---	----		----
21		(8.0)	2	(420)		---	----		----
22		----	0	(415)					
23		----	0	(400)				1.8	

Time: 45.0°E.
Sweep: 1.25 Mc to 20.0 Mc.

Table 35

Tahiti, Society Is. (17.7° S, 149.3° W) May 1959

Time	h'F2	foF2—Count		h'F	foF1	h'E	foE	foEs	(M3000)F2
00		10.5	16	240		---	E		3.10
01		8.7	14	<245		---	E	1.4	3.00
02		8.1	17	<245		---	E		3.10
03		7.5	21	235		---	E		3.10
04		6.1	23	<245		---	E		2.95
05		5.5	23	245		---	E		2.95
06		6.6	22	290		---	E	1.3	2.85
07		11.0	19	250		120	2.40		3.20
08		13.5	19	245		115	3.15		3.15
09		14.5	21	230		110	3.50		3.15
10		14.7	26	225		110	3.80		3.00
11	---	14.0	21	225		105	4.00	4.0	2.80
12	---	14.8	23	220		---	----	4.2	2.80
13	---	14.2	21	230		---	----	4.1	2.70
14	---	14.2	18	240	---	110	----	4.4	2.55
15	---	15.0	19	245		110	3.40	4.4	2.60
16		D	22	250		110	3.00	4.2	(2.70)
17		D	23	270		120	2.30	3.1	(2.80)
18		D	22	255		---	E	3.1	----
19		D	21	250		---	----	3.1	----
20		D	17	235		---	E	2.6	----
21		D	17	230		---	E	2.2	----
22		14.0	17	225		---	----	1.8	3.10
23		11.3	15	235		---	E	1.8	(3.90)

Time: 150.0°W.
Sweep: 1.2 Mc to 17.0 Mc.

Table 36

Tananarive, Madagascar (18.8° S, 47.5° E) May 1959

Time	h'F2	foF2—Count		h'F	foF1	h'E	foE	foEs	(M3000)F2
00		4.5	30	250		---	E	2.0	2.90
01		4.0	29	255		---	E	2.0	2.80
02		3.7	30	265		---	E	2.3	2.80
03		3.0	30	<275		---	E	2.1	2.65
04		3.1	31	<300		---	E	2.1	2.65
05		3.3	31	280		---	E	2.2	2.80
06		5.4	31	270		---	E	2.5	2.90
07		10.4	30	250		120	2.40	2.7	3.20
08		12.6	31	240		115	3.15		3.15
09	---	13.0	31	235		110	3.50		3.10
10	---	12.8	31	230		110	3.75		2.90
11	---	12.6	31	230		110	3.90		2.85
12		12.5	31	230		110	3.90	4.3	2.70
13		12.2	31	230		110	3.95	4.2	2.60
14	---	11.9	31	240	---	115	3.75	4.2	2.55
15		12.0	31	245		120	3.45	3.9	2.60
16		12.1	31	250		125	2.95	3.2	2.65
17		11.9	31	255		---	2.10	3.0	2.75
18		11.2	31	235		---	----	3.0	2.85
19		9.6	30	<240		---	----	2.8	2.90
20		8.6	29	240		---	----	2.7	2.95
21		8.0	31	240		---	----	2.8	3.10
22		6.8	30	235		---	----	2.4	3.10
23		5.0	30	<240		---	E	2.4	2.95

Time: 45.0°E.
Sweep: 1.25 Mc to 20.0 Mc.

Table 37

Sao Paulo, Brazil (23.5° S, 46.5° W) May 1959

Time	h'F2	foF2—Count		h'F	foF1	h'E	foE	foEs	(M3000)F2
00		11.0	23	210					3.20
01		9.8	23	215					3.20
02		8.7	23	220					3.10
03		7.0	23	220					3.20
04		5.9	23	220					3.00
05		4.9	23	260					2.95
06		4.5	22	(260)					2.00
07		8.2	20	245					3.10
08		11.6	19	230			---		3.10
09		12.9	21	225			---		3.15
10		13.7	20	220			---		3.10
11	---	(13.6)	19	200			---		2.95
12	---	>14.0	19	<215			---		2.80
13	---	14.1	17	225			---		2.75
14	(335)	(14.4)	19	220			---		2.80
15	---	(14.5)	20	230			---		(2.90)
16		14.5	22	235			---		2.90
17		(14.6)	23	240			---		(3.05)
18		(14.2)	23	225			---		(3.20)
19		(13.5)	24	220					(3.05)
20		>13.2	24	250					(2.90)
21		(13.4)	24	240					(3.00)
22		12.6	26	215					3.05
23		11.6	26	215					3.10

Time: 45.0°W.
Sweep: 1.75 Mc to 20.0 Mc in 2 minutes 30 seconds.

Table 38

Johannesburg, Union of S. Africa (26.1° S, 28.1° E) May 1959

Time	h'F2	foF2—Count		h'F	foF1	h'E	foE	foEs	(M3000)F2
00		4.0	20	---				<1.5	2.80
01		3.6	20	---				<1.4	2.70
02		3.4	28	---				<1.4	2.75
03		3.6	28	---				<1.1	2.80
04		3.3	27	---				<1.2	2.80
05		3.2	28	260				<1.3	2.80
06		3.4	27	240				<1.3	2.90
07		7.0	20	230		2.1			3.25
08	---	10.8	28	230		2.9			3.20
09	(225)	12.2	28	220	---	3.4			3.10
10	(235)	13.2	28	220	---	3.6			3.00
11	(240)	13.2	29	215	---	3.8		3.9	2.90
12	(245)	13.3	29	220	---	3.9		4.0	2.80
13	(250)	13.2	29	220	---	3.9		4.0	2.75
14	---	13.4	30	230	---	3.7		4.0	2.75
15	---	13.2	29	230		3.4		3.7	2.75
16	---	12.0	29	235		3.0		3.0	2.75
17		13.0	29	235		2.2			2.85
18		11.9	29	225		<1.5		1.7	2.95
19		>9.6	26	220				1.8	2.95
20		>0.5	26	230				<1.7	3.10
21		>7.1	28	225				<1.6	3.20
22		5.6	28	220				<1.6	3.10
23		4.6	27	(235)				<1.6	2.85

Time: 30.0°E.
Sweep: 1.0 Mc to 16.0 Mc in 7 seconds.

Table 39

Buenos Aires, Argentina (34.5° S, 58.5° W) May 1959

Time	h'F2	foF2—Count		h'F	foF1	h'E	foE	foEs	(M3000)F2
00		8.2	31	270					2.75
01		7.7	30	260					2.80
02		6.9	31	250					2.85
03		6.2	31	245					2.95
04		5.4	31	225					3.10
05		3.7	31	240					2.60
06		4.0	31	205					2.65
07		7.9	30	240		---	----		3.05
08		10.4	20	230		---	2.00		3.20
09	---	(11.7)	20	230		---	3.00		3.20
10	---	12.5	25	225		---	----		3.10
11	---	12.4	26	225		---	----		3.10
12	---	>12.1	26	220		---	----		2.85
13	---	>13.8	28	230		---	----		2.80
14	---	(14.0)	29	235		---	----		2.90
15		14.0	29	240		---	----		2.90
16		>13.6	30	240					3.00
17		(12.0)	29	220					3.00
18		>11.3	30	210					3.00
19		11.9	30	225					2.95
20		12.3	30	220					3.00
21		>11.0	30	220					3.00
22		10.2	31	240					2.80
23		0.5	30	270					2.75

Time: 60.0°W.
Sweep: 1.0 Mc to 25.0 Mc in 27 seconds.

Table 40

Dakar, French W. Africa (14.0° N, 17.4° W) April 1959

Time	h'F2	foF2—Count		h'F	foF1	h'E	foE	foEs	(M3000)F2
00		>12.0	4	330		---	----	2.0	----
01		>13.9	6	295		---	E	2.2	----
02		(13.1)	9	250		---	E	2.6	----
03		11.4	19	225		---	E	3.0	(3.15)
04		0.2	18	230		---	E	2.7	3.10
05		6.4	23	250		---	E	2.6	2.05
06		6.1	27	240		---	E	2.5	2.75
07		7.3	26	265		---	1.60	2.6	2.90
08		10.1	27	240	110	2.65	3.0		3.10
09		12.5	29	235	105	3.35			3.00
10		13.8	30	230	105	3.75			2.05
11		14.6	30	220	105	4.00			2.70
12		15.0	30	210	105	4.15			2.60
13		15.3	30	205	105	----			2.55
14	---	15.2	30	210	110	4.15			2.50
15	---	15.6	30	205	105	4.00			2.40
16	---	15.9	29	220	105	3.05			2.40
17		15.0	26	230	110	3.50			2.45
18		14.5	25	250	110	2.95			2.40
19		14.5	22	270	130	2.00		2.6	2.45
20		14.3	23	370				2.0	2.20
21		>13.7	12	430				2.6	----
22		(12.7)	3	410				2.2	----
23		(13.0)	3	370				2.5	----

Time: 0.0°.
Sweep: 1.2 Mc to 17.0 Mc.

Table 41

Djibouti, French Somaliland (11.6° N, 43.2° E) April 1959

Time	h'F2	foF2—Count		h'F	foF1	h'E	foE	foEs	(M3000)F2
00		(10.0)	2	270				2.0	----
01		(0.8)	3	250				1.9	----
02		(10.0)	2	255				1.8	----
03		(9.2)	3	250		---	----	1.9	----
04		(0.7)	3	245		---	----	1.9	----
05		(7.0)	8	240		---	----	2.0	(2.95)
06		(7.6)	8	260		---	E	2.3	(2.90)
07		10.0	12	260	120	2.70	3.6		2.80
08		12.3	15	250	115	3.30	4.0		2.75
09		13.0	10	240	110	3.70	6.7		2.45
10		12.4	11	240	---	4.00	10.2		2.25
11		12.2	21	230	---	----	10.0		2.15
12		12.3	25	---	---	----	9.0		2.20
13		12.5	22	(230)	---	----	10.2		2.15
14		12.6	23	230	---	4.10	8.5		2.10
15		12.6	16	235	---	3.90	7.0		2.10
16		12.7	12	245	---	3.50	6.6		(2.10)
17		(12.3)	3	260	110	2.90	4.4		----
18		(11.6)	2	295	130	1.90	3.0		----
19		(10.8)	2	410	---	E	1.6		----
20		(9.6)	2	---	---	----			
21		(9.0)	1	(430)	---	----			----
22		----	0	<350					
23		(11.2)	1	310				1.9	----

Time: 45.0°E.
Sweep: 1.25 Mc to 20.0 Mc.

Table 42

Tahiti, Society Is. (17.7° S, 149.3° W) April 1959

Time	h'F2	foF2—Count		h'F	foF1	h'E	foE	foEs	(M3000)F2
00		14.4	21	245		---	E	2.6	2.90
01		13.5	20	240		---	E	1.8	3.00
02		10.0	19	230		---	E	1.9	3.00
03		8.2	23	240		---	E	2.3	2.75
04		7.0	21	260		---	E	2.2	2.00
05		7.6	24	275		---	E	2.1	2.00
06		8.7	24	265		---	E	2.8	2.90
07		13.0	21	250	115	2.60	3.1		3.20
08		14.0	24	240	110	3.30			3.05
09		15.2	25	230	110	3.70			2.90
10		15.4	28	230	105	3.90			2.70
11		16.0	28	225	105	----	4.5		2.60
12	(305)	0	27	230	105	----	4.0		2.60
13	380	0	28	230	105	4.00	5.0		2.50
14	360	0	27	240	105	3.80	5.9		2.50
15	390	0	26	240	110	3.60	5.5		----
16	(390)	0	26	250	115	----	4.1		----
17		0	27	270	---	2.40	3.7		
18		0	27	295	---	----	3.1		
19		0	29	300	---	E	3.1		----
20		0	27	250	---	----	3.1		----
21		0	24	240	---	----	3.1		----
22		0	21	245	---	E	2.8		----
23		0	21	235	---	E	2.6		(2.90)

Time: 150.0°W.
Sweep: 1.2 Mc to 17.0 Mc.

Table 43

Tananarive, Madagascar (10.8° S, 47.5° E) April 1959

Time	h'F2	foF2—Count		h'F	foF1	h'E	foE	foEs	(M3000)F2
00		6.7	28	250		---	----	2.6	3.00
01		6.0	20	250		---	E	2.2	2.05
02		5.2	28	250		---	E	1.7	2.90
03		4.5	28	<255		---	E	2.0	2.75
04		4.2	28	<200		---	E	2.0	2.70
05		4.0	29	275		---	E	2.1	2.85
06		6.3	29	270		---	1.70	2.5	2.95
07		10.4	27	250		<115	2.60		3.10
08		12.4	27	245		110	3.25		3.05
09		13.4	26	240		110	3.70		3.00
10		13.4	25	230		110	(3.90)		2.90
11		13.0	20	235		110	4.00		2.70
12		13.0	20	<250		110	----		2.60
13	---	13.3	28	<250		110	(4.00)		2.60
14	---	13.2	28	<250		110	(3.90)		2.60
15	---	12.9	27	250		110	3.60	4.0	2.60
16		12.5	28	250		<120	3.15	3.5	2.60
17		12.2	28	260		<125	2.40	3.0	2.70
18		12.0	29	250				2.8	2.00
19		11.2	26	250				2.8	2.00
20		(10.2)	27	250				2.8	(2.90)
21		(9.8)	26	255				2.7	(2.95)
22		0.7	28	240				2.8	3.05
23		7.2	28	245		---	E	2.4	3.00

Time: 45.0°E.
Sweep: 1.25 Mc to 20.0 Mc.

Table 44

Juliusruh/Rügen, Germany (54.6° N, 13.4° E) June 1950

Time	h'F2	foF2—Count		h'F	foF1	h'E	foE	foEs	(M3000)F2
00		7.7	19	<300			----		2.40
01		7.0	20	<310			E	0.9	2.40
02		6.9	19	310			E	1.4	2.40
03		6.8	20	330			1.20	1.5	2.40
04	---	7.0	20	(300)			2.00	2.2	2.50
05	---	7.1	21	(280)	---		2.55	2.8	2.50
06	(500)	7.1	19	(250)	---		2.90	3.5	2.45
07	430	7.2	20	240	5.0		3.25	4.1	2.45
08	465	7.4	19	<240	5.3		3.55	4.3	2.40
09	450	7.3	10	230	5.5		3.70	4.2	2.50
10	500	7.3	17	230	5.6		3.80	4.3	2.35
11	450	7.4	17	<230	5.6		4.00	4.4	2.40
12	450	7.6	20	220	5.6		3.90	4.4	2.40
13	470	7.4	21	(230)	5.7		4.00	4.2	2.40
14	460	7.5	21	(225)	5.6		3.90	4.2	2.40
15	440	7.3	19	(240)	5.6		3.00	4.2	2.45
16	440	7.4	20	230	5.5		3.70	4.5	2.45
17	(400)	7.4	20	<245	---		3.40	4.4	2.60
18	---	7.8	23	(260)	---		3.00	4.4	2.60
19	---	7.0	22	<200			2.50	3.8	2.70
20		7.0	20	290			1.95	2.7	2.70
21		7.6	18	(290)			----	2.4	2.60
22		7.7	10	<290					2.55
23		7.8	20	<300					2.45

Time: 15.0°E.
Sweep: 0.5 Mc to 20.0 Mc in 20 seconds.

Table 45

Macquarie I. (54.5° S, 159.0° E) June 1950

Time	h'F2	foF2—Count		h'F	foF1	h'E	foE	foEs	(M3000)F2
00		>4.0	0	(250)				4.3	----
01		>4.0	11	250				3.9	----
02		>4.1	10	240				3.9	----
03		>4.1	12	250					(2.95)
04		>4.2	13	240					(3.00)
05		>4.0	11	240					----
06		>3.9	12	220					(3.05)
07		>4.6	12	220					----
08		>6.1	10	200		---	<2.3		
09		>7.6	10	200		100	2.6		
10		>7.8	14	200		100	<3.0		
11		>7.8	14	200		100	(3.0)		
12		>7.8	14	200		100	(3.0)		----
13		>7.0	16	200		100	2.0		----
14		>7.7	19	210		100	2.3		
15		>7.1	10	200		100	(2.0)		----
16		>6.9	14	200					----
17		>6.4	14	200				3.4	----
18		>5.9	10	200				4.5	----
19		>5.5	11	220				4.3	----
20		(4.4)	12	230				4.3	(3.00)
21		>4.0	11	240				3.8	----
22		3.9	12	250				3.7	(2.80)
23		>3.8	10	250				4.6	(3.05)

Time: 150.0°E.
Sweep: 1.0 Mc to 13.0 Mc in 1 minute 55 seconds.

Table 46

Poitiers, France (46.6° N, 0.3° E) May 1958

Time	h'F2	foF2—Count		h'F	foF1	h'E	foE	foEs	(M3000)F2
00		(8.2)	30	<325					(2.25)
01		(8.1)	29	<325					(2.30)
02		(7.5)	30	<320					2.25
03		7.1	29	<320					2.30
04		6.8	30	320		---	----	2.2	2.40
05	---	7.1	29	275	---	140	1.90	2.8	2.55
06	(415)	(6.0)	29	250	(4.7)	110	2.70	3.0	2.55
07	410	(6.3)	29	<250	(5.4)	105	3.20	3.6	2.50
08	450	8.6	30	240	(5.7)	105	3.60	3.9	(2.55)
09	430	(8.7)	31	<235	6.0	105	3.75	4.4	2.40
10	430	9.1	31	240	6.1	105	3.90	4.3	2.45
11	440	9.5	29	235	6.1	105	3.95	4.2	2.45
12	425	9.9	31	240	6.1	105	4.00	4.3	2.50
13	410	(9.9)	31	235	6.1	105	4.00	4.2	2.45
14	410	(9.7)	31	235	6.1	105	3.95	4.1	2.50
15	390	(9.5)	30	<245	6.0	105	3.80	4.0	2.45
16	390	(9.3)	29	250	(5.8)	105	3.60	4.3	(2.50)
17	<370	(9.3)	30	(250)	(5.2)	110	3.10	3.6	(2.55)
18	---	(9.0)	30	(265)	---	115	2.55	3.1	----
19		(8.0)	30	200		---	1.65	2.4	----
20		(0.7)	29	275		---	E	2.2	----
21		>0.0	30	(290)					----
22		(0.2)	29	<300					
23		(8.3)	30	<330					----

Time: 0.0°.
Sweep: 1.6 Mc to 17.0 Mc in 1 minute.

Table 47

Rabat, Morocco (30.9° N, 6.0° W) May 1958

Time	h'F2	foF2—Count		h'F	foF1	h'E	foE	foEs	(M3000)F2
00		>9.0	30	<350				3.1	----
01		>9.0	31	<330				2.3	(2.45)
02		>9.0	31	<315				2.1	(2.45)
03		(9.2)	31	<305				2.1	2.50
04		8.9	30	<300					2.50
05		8.6	30	<295		---	----		2.55
06	---	0.8	30	255		125	2.10		2.80
07	---	9.1	29	245	---	110	2.90	3.1	2.80
08	(365)	9.0	29	235	5.5	105	3.40	3.6	2.00
09	(400)	9.7	29	230	5.9	105	3.70	4.5	2.55
10	420	10.1	29	240	6.0	100	4.00	4.9	2.50
11	400	11.1	29	235	6.4	100	4.10	4.2	2.45
12	400	11.9	30	<240	6.5	105	4.20		2.45
13	400	12.1	30	240	6.4	105	4.20	4.4	2.45
14	395	12.1	30	245	6.4	105	4.15		2.50
15	400	12.0	30	245	6.4	105	4.00	4.6	2.55
16	375	11.3	30	250	6.0	105	3.80	5.0	2.55
17	355	11.0	29	250	---	105	3.45	4.6	2.60
18	---	(10.3)	27	260		110	2.75	4.4	2.65
19		(9.5)	28	<200		130	1.90	3.9	2.70
20		(9.1)	31	<290				3.5	2.50
21		(9.0)	28	<340				3.3	(2.45)
22		(9.2)	30	<350				3.1	(2.40)
23		>9.0	27	<350				3.3	(2.40)

Time: 0.0°.
Sweep: 1.6 Mc to 17.0 Mc in 1 minute.

Table 48

Tamanrasset, French N. Africa (22.0° N, 5.5° E) May 1958

Time	h'F2	foF2—Count		h'F	foF1	h'E	foE	foEs	(M3000)F2
00		(12.5)	23	315				2.3	(2.65)
01		(11.2)	23	310		---	----	2.4	(2.80)
02		(9.6)	23	300		---	E	2.4	(2.70)
03		>9.0	27	280		---	E	2.4	(2.90)
04		>8.5	29	<250		---	E	2.6	(3.10)
05		>7.7	30	255		---	E	3.1	2.85
06		(8.7)	29	240		105	2.60	3.1	3.10
07		9.2	30	230		105	(3.20)	4.5	2.90
08		10.1	31	225		100	(3.60)	5.0	2.70
09	---	11.2	31	225	---	100	(4.00)	5.7	2.50
10	---	12.6	29	230	---	100	(4.15)	5.3	2.50
11	415	13.4	31	230	---	100	4.25	5.0	2.50
12	430	14.1	31	<230	(7.0)	100	4.25	4.9	2.50
13	430	>15.0	31	225	(6.5)	100	4.20	4.7	2.50
14	420	>15.0	31	225	(6.8)	100	4.00	4.8	(2.50)
15	410	>15.0	31	230	---	100	3.80	4.2	(2.50)
16	395	>15.0	31	250		105	3.40	4.4	(2.55)
17	---	>15.0	30	(255)		110	(2.70)	3.2	(2.50)
18		>14.5	31	290		---	E	3.1	(2.40)
19		(14.4)	29	350		---	E	2.6	(2.35)
20		>14.5	25	385		---	E	2.0	(2.30)
21		(14.7)	25	380		---	----	2.1	(2.35)
22		>14.0	25	355		---	----	2.0	(2.45)
23		>14.0	25	340		---	----	2.2	(2.60)

Time: 0.0°.
Sweep: 1.2 Mc to 17.0 Mc in 1 minute.

Table 49

Dakar, French W. Africa (14.7° N, 17.4° W) May 1950

Time	h'F2	foF2—Count		h'F	foF1	h'E	foE	foEs	(M3000)F2
00		(9.7)	3	365					----
01		(9.3)	4	335					----
02		(0.9)	5	305					(2.70)
03		(7.6)	9	205					(2.05)
04		(7.2)	7	260					(3.00)
05		(7.4)	17	230					(3.05)
06		6.4	18	210					3.00
07		7.4	20	<235		135	2.00	4.2	3.05
08		9.6	11	220		105	2.80	4.1	3.00
09		11.4	12	210		---	3.50	4.2	2.00
10		(12.1)	7	205		95	----	4.0	(2.65)
11		(13.5)	2	(200)		---	----		----
12		----	0	(200)		100	----		
13		(15.0)	2	(190)		100	----		----
14		(14.8)	1	(190)		95	----		----
15		(14.0)	2	195		100	----		----
16	---	(15.3)	2	<205		100	3.85	4.0	----
17	---	(15.4)	1	220		100	3.50		----
18		(14.0)	3	230		105	2.85	3.2	----
19		(12.7)	2	255		140	2.20		----
20		(12.0)	8	340		---	----		(2.30)
21		(11.6)	9	420					(2.30)
22		(10.4)	7	425					(2.30)
23		(10.4)	4	400					----

Time: 0.0°.
Sweep: 1.25 Mc to 20.0 Mc in 10 minutes.

Table 50

Djibouti, French Somaliland (11.6° N, 43.2° E) May 1950

Time	h'F2	foF2—Count		h'F	foF1	h'E	foE	foEs	(M3000)F2
00		----	0	370		---	----	1.9	
01		----	0	345		---	----	1.9	
02		----	0	300		---	----	1.8	
03		----	0	260		---	----	1.9	
04		>7.0	1	230		---	E		
05		(5.4)	8	230		---	E		(3.15)
06		8.6	11	275		150	1.85	2.1	----
07		(10.8)	5	250		110	2.90	3.3	----
08		11.8	11	235		110	3.55	3.9	(2.50)
09		(12.5)	6	225		110	3.80	4.3	(2.40)
10		12.8	11	(220)		---	4.20	6.6	(2.20)
11	---	12.9	11	---	---	---	----	7.6	(2.15)
12	---	12.8	11	(215)	---	---	----	7.0	(2.10)
13	---	12.6	10	(215)	---	---	----	6.4	(2.05)
14	---	(12.3)	9	(215)	---	110	4.20	6.2	----
15	---	(12.4)	7	215	---	---	4.00	5.4	----
16	---	(11.8)	4	230	---	110	(3.65)	6.6	----
17		(12.6)	2	250		110	3.00	4.8	
18		----	0	280		125	2.00	4.1	
19		----	0	360		---	E		
20		(7.0)	1	440		---	----		----
21		(7.0)	1	440		---	----		----
22		(10.0)	1	420		---	----		----
23		----	0	405		---	----		

Time: 45.0°E.
Sweep: 1.25 Mc to 20.0 Mc in 10 minutes.

Table 51

Paramaribo, Surinam (5.8° N, 55.2° W) May 1950

Time	h'F2	foF2—Count		h'F	foF1	h'E	foE	fEs	(M3000)F2
00		12.2	29	375				4.3	2.35
01		13.2	29	345				3.2	2.45
02		13.2	29	300				3.0	2.65
03		>11.6	29	280				3.0	2.70
04		10.7	29	275				2.8	2.65
05		9.9	29	280				2.8	2.70
06		9.5	29	260				2.8	2.80
07		8.8	29	250				2.8	2.85
08		7.7	29	250				2.6	2.70
09		7.1	28	250		---	E	2.9	2.70
10		8.4	26	250		110	2.3	4.0	2.80
11		10.5	27	245		100	3.2	4.2	2.85
12	(200)	12.0	27	230		100	3.7		2.75
13	320	12.7	27	230	---	100	4.0	4.2	2.55
14	350	13.1	27	(240)	---	100	4.3		2.55
15	375	14.2	27	<250	---	100	4.4		2.55
16	<380	14.7	27	<250	7.3	110	4.1		2.50
17	400	14.9	27	<250	7.0	100	4.4		2.50
18	400	14.3	27	<250	7.0	100	4.2	4.4	2.50
19	400	14.0	26	(245)	7.2	100	3.7	4.7	2.50
20	400	13.8	27	(250)	6.8	100	3.3	4.6	2.45
21	400	13.0	27	(270)		100	2.7	4.8	2.40
22		>12.0	27	330				4.7	2.30
23		12.0	28	390				4.7	2.30

Time: 0.0°.
Sweep: 1.4 Mc to 20.0 Mc in 40 seconds.

Table 52

Bangui, French Equatorial Africa (4.6° N, 18.6° E) May 1950

Time	h'F2	foF2—Count		h'F	foF1	h'E	foE	foEs	(M3000)F2
00		(11.4)	6	200				2.6	----
01		(10.0)	4	260				2.5	----
02		>9.0	6	250				2.4	(2.70)
03		9.0	15	245		---	----	2.5	(2.90)
04		7.6	15	235		---	----	3.0	2.90
05		6.5	21	235		---	----	3.2	3.00
06		9.6	22	270		<140	2.10	4.7	2.80
07		12.9	25	250		110	3.20	4.7	2.85
08		14.4	26	235		105	3.65	5.6	2.70
09		15.2	26	230		100	4.00	4.9	2.55
10	(450)	15.1	26	220		105	4.20	5.2	2.25
11	---	>14.6	21	210		105	4.30	5.0	----
12	---	>12.6	24	210		105	4.35	5.7	----
13		>11.9	20	200		105	4.25	4.4	----
14		>12.5	19	210		105	4.00	4.3	----
15		>12.4	25	230		105	3.75	4.5	----
16		(12.6)	25	245		105	3.30	4.5	----
17		>12.1	23	265		110	2.70	4.0	----
18		>11.8	22	305		---	1.60	2.9	----
19		>11.1	15	400		---	E		----
20		>11.4	4	---					
21		>11.7	3	(350)					
22		>11.5	3	(310)					
23		(11.5)	5	(200)					

Time: 15.0°E.
Sweep: 1.2 Mc to 17.0 Mc in 1 minute.

Table 53

Hollandia, Netherlands New Guinea (2.5° S, 140.8° E) May 1950

Time	h'F2	foF2—Count		h'F	foF1	h'E	foE	fEs	(M3000)F2
00	---	(14.0)	27	230	---	100	4.0		3.10
01	(350)	>13.0	28	240	---	100	4.2		(2.80)
02	370	>13.4	29	<250	(8.4)	100	---		----
03	400	>13.5	29	(250)	(8.0)	100	---		(2.75)
04	405	>13.3	30	<260	(8.0)	100	4.2		----
05	450	13.5	30	(250)	7.4	100	4.0		(2.60)
06	430	>13.4	30	(240)	(7.6)	100	3.7	4.0	(2.65)
07	---	>13.5	30	(225)	---	100	3.0	4.2	(2.60)
08		>13.2	29	250		120	2.3	3.8	----
09		>13.5	29	290				3.8	----
10		>13.5	30	300				3.3	----
11		>13.3	30	250				3.5	(2.85)
12		>13.3	29	220				3.2	(2.85)
13		>13.5	30	220				3.6	2.90
14		(13.1)	29	200				3.4	3.00
15		>12.2	30	200				2.6	3.00
16		10.8	30	200				3.4	3.00
17		9.8	30	200				3.2	3.10
18		>9.1	30	200				3.3	3.20
19		8.5	28	200				3.5	3.20
20		6.9	29	200				3.3	3.25
21		10.5	29	230		120	2.2	3.3	3.30
22		13.5	31	220		100	3.1	3.8	3.30
23		14.3	31	220		100	3.0	4.2	3.20

Time: 0.0°.
Sweep: 1.4 Mc to 20.0 Mc in 40 seconds.

Table 54

Tahiti, Society Is. (17.7° S, 149.3° W) May 1950

Time	h'F2	foF2—Count		h'F	foF1	h'E	foE	foEs	(M3000)F2
00		11.6	25	230		---	(1.10)	3.1	2.90
01		10.0	25	230		---	(1.10)	2.8	2.90
02		8.9	26	240		---	E	2.8	2.95
03		7.5	26	225		---	----	3.0	3.10
04		6.3	27	240		---	(0.90)	2.8	2.80
05		5.4	24	250		---	E	3.1	2.80
06		6.0	24	305		---	E	3.1	2.80
07		12.0	25	250		120	2.45	3.1	3.00
08		15.0	27	245		110	3.20		3.10
09	---	16.1	23	240		105	3.60		3.05
10	---	15.8	22	230		105	3.00		2.85
11	(350)	16.0	24	225		100	4.00		2.80
12	(365)	16.0	25	230		100	4.00		2.65
13	375	15.4	25	230		100	3.80	4.5	2.60
14	400	15.3	26	240	---	105	3.70	4.0	2.55
15	400	16.0	25	245	---	105	3.50	4.0	2.55
16	(355)	16.7	27	250		110	3.10	3.9	2.60
17		D	28	270		125	2.20	3.1	(2.65)
18		D	28	280		---	----	3.3	----
19		D	26	270		---	----	3.1	----
20		D	27	240		---	(1.20)	3.1	----
21		D	26	230		---	(1.10)	3.1	(2.80)
22		>16.3	20	225		---	E	3.1	2.80
23		13.5	25	220		---	----	3.1	2.80

Time: 150.0°W.
Sweep: 1.2 Mc to 17.0 Mc in 1 minute.

Table 55

Tananarive, Madagascar (18.8° S, 47.5° E) — May 1958

Time	h'F2	foF2—Count		h'F	foF1	h'E	foE	foEs	(M3000)F2
00		4.6	26	<260		---	E	2.1	2.75
01		4.6	28	<265		---	E	2.8	2.70
02		4.8	29	<270		---	E	2.7	2.80
03		3.6	27	270		---	E	1.7	2.70
04		3.5	25	295		---	E	2.8	2.70
05		3.5	27	270		---	E	2.2	2.80
06		5.7	27	270		---	E	2.5	2.85
07		10.8	26	240		120	2.30		3.15
08		12.4	24	235		110	(3.10)		3.15
09		13.2	25	230		110	3.50		3.00
10		13.1	29	220		110	----	(2.9)	2.85
11		12.8	28	225		110	----		2.70
12		12.6	29	230		110	----	(4.8)	2.65
13		12.4	28	230		110	----	4.4	2.55
14	---	12.2	30	230	---	110	(3.70)	4.2	2.55
15		12.2	30	240		115	3.40	3.7	2.50
16		12.0	31	245		120	2.95	3.4	2.60
17		11.8	29	250		125	2.05	3.4	2.75
18		11.4	29	240				3.1	2.75
19		10.5	25	235				2.8	2.80
20		9.6	28	250				2.7	2.95
21		8.7	27	235					3.15
22		6.9	22	230				2.6	3.10
23		4.7	24	230				2.9	3.00

Time: 45.0°E.
Sweep: 1.25 Mc to 20.0 Mc in 10 minutes.

Table 56

Port Lockroy (64.8° S, 63.5° W) — May 1958

Time	h'F2	foF2—Count		h'F	foF1	h'E	foE	foEs	(M3000)F2
00		3.4	27	365			---	0.8	2.25
01		3.0	30	365			---		2.25
02		3.0	28	370				1.1	2.25
03		3.0	29	360				1.0	2.30
04		2.9	26	380				1.0	2.25
05		2.6	27	370					2.25
06		2.4	29	350			---		2.40
07		2.8	26	320			1.2		2.35
08		>5.2	26	250			1.2		<2.60
09		8.0	27	230			1.7	2.1	2.95
10		10.2	31	220			2.1	2.3	3.15
11		11.8	30	215			2.2	2.2	3.25
12		12.8	29	215			2.3		3.25
13		13.0	31	215			2.4		3.20
14		11.6	31	215			2.1		3.20
15		10.5	30	215			2.0		3.20
16		10.0	29	220			1.4	1.9	3.20
17		8.2	27	215			---	1.2	3.25
18		6.3	25	210			---	1.0	3.10
19		4.4	27	<230			---	0.8	3.00
20		3.9	28	260			---	0.9	2.55
21		3.6	27	325			---		2.40
22		3.4	26	360			---	0.9	2.30
23		3.3	26	370			---		2.25

Time: 60.0°W.
Sweep: 0.67 Mc to 25.0 Mc in 5 minutes, automatic operation.

Table 57

Poitiers, France (46.6° N, 0.3° E) — April 1958

Time	h'F2	foF2—Count		h'F	foF1	h'E	foE	foEs	(M3000)F2
00		(8.2)	30	345					(2.20)
01		>8.1	30	<330					(2.25)
02		(7.5)	30	<325					2.20
03		(7.0)	30	<335					2.25
04		6.5	30	<330					2.30
05		6.6	30	300		---	E	2.2	2.45
06	---	7.2	30	255		125	2.20	1.8	2.65
07	---	8.5	30	245	---	110	2.90		2.65
08	(400)	(9.3)	30	240	(5.8)	105	3.40		(2.55)
09	400	10.4	30	235	(6.6)	105	3.70		2.60
10	420	11.4	30	235	(6.8)	105	3.90	4.1	2.55
11	395	12.0	30	240	(7.0)	105	4.00		2.50
12	400	12.4	30	235	6.9	105	4.00		2.50
13	390	(12.3)	30	240	(7.0)	105	4.00		2.50
14	380	12.0	30	240	(6.6)	(105)	3.95		2.50
15	380	11.6	28	245	(6.4)	110	3.80		2.50
16	(340)	(11.4)	29	250	(6.1)	110	3.40	3.4	2.50
17	---	(11.5)	30	255	---	115	2.90	3.0	(2.60)
18		(11.3)	29	265		125	2.20	2.4	----
19		>10.0	30	260		---	E	1.8	----
20		(9.4)	30	260					
21		>8.5	30	<275					
22		>8.5	30	<315					
23		>8.4	30	<340					----

Time: 0.0°.
Sweep: 1.6 Mc to 17.0 Mc in 1 minute.

Table 58

Rabat, Morocco (30.0° N, 6.0° W) — April 1958

Time	h'F2	foF2—Count		h'F	foF1	h'E	foE	foEs	(M3000)F2
00		(9.8)	28	<330					(2.40)
01		(9.5)	29	<315					(2.40)
02		(9.2)	29	<300					2.40
03		(9.0)	28	<300					2.40
04		8.5	29	<300					2.45
05		8.3	29	<315					2.45
06		8.9	29	275		---	E		2.65
07	---	(9.4)	28	245		115	2.50		(3.00)
08	---	10.4	28	230		110	3.20		2.90
09	(270)	11.4	28	230		105	3.55		2.70
10	(360)	12.6	30	230	---	105	3.80		2.60
11	355	13.1	28	230	7.2	105	3.90		2.55
12	370	13.2	29	240	7.0	105	4.00		2.45
13	380	13.2	28	240	7.3	105	4.00		2.45
14	395	13.3	28	245	7.1	105	4.00		2.40
15	390	13.0	28	245	7.0	105	3.95		2.45
16	370	12.8	28	250	---	105	3.65	3.6	2.45
17	(350)	12.4	27	250	---	110	3.20	4.0	2.50
18		(12.1)	27	(270)		120	2.50	3.5	2.60
19		(11.3)	28	(270)				3.4	(2.65)
20		(10.0)	28	<270				2.8	(2.50)
21		(9.5)	29	<325				2.2	(2.35)
22		>9.0	29	<340				1.8	(2.40)
23		>9.0	29	<330					----

Time: 0.0°.
Sweep: 1.6 Mc to 17.0 Mc in 1 minute.

Table 59

Tamanrasset, French W. Africa (22.8° N, 5.5° E) — April 1958

Time	h'F2	foF2—Count		h'F	foF1	h'E	foE	foEs	(M3000)F2
00		D	22	300		---	E	1.9	(2.60)
01		>15.0	19	280		---	E	2.0	(2.60)
02		>13.5	23	255		---	E	2.3	(2.70)
03		>11.5	14	250		---	E	2.4	(2.80)
04		9.0	17	255		---	E	2.4	(2.60)
05		8.8	20	<255		---	E	3.0	2.75
06		10.1	20	250		120	2.40	3.4	3.00
07		11.7	27	235		105	3.20	4.4	2.95
08		12.7	25	230		105	(3.75)	5.9	2.80
09		13.3	29	220	---	105	(4.05)	5.5	2.65
10	---	14.1	29	220	---	105	(4.20)	5.1	2.55
11	(415)	>15.0	29	<220	---	100	(4.20)	5.0	2.50
12	(430)	>15.3	28	225	---	(100)	4.30		2.50
13	445	15.1	26	230	(7.5)	(105)	4.25		2.45
14	445	(15.1)	25	230	(7.3)	105	4.15		2.45
15	425	(15.2)	21	240	(7.0)	105	(3.80)		(2.45)
16	405	>15.0	18	250		105	3.30	3.4	(2.50)
17	---	>15.0	19	260		110	2.60	2.8	----
18		>15.0	18	300		---	E	2.5	(2.40)
19		>15.0	22	380		---	E	2.0	(2.25)
20		(16.5)	19	380		---	E	2.0	(2.25)
21		D	22	350		---	E	1.8	
22		D	21	330		---	E	1.9	----
23		D	18	310		---	E	1.8	----

Time: 0.0°.
Sweep: 1.4 Mc to 17.0 Mc in 1 minute.

Table 60

Dakar, French W. Africa (14.7° N, 17.4° W) — April 1958

Time	h'F2	foF2—Count		h'F	foF1	h'E	foE	foEs	(M3000)F2
00		(13.0)	7	335					(2.55)
01		(14.0)	5	300					(2.80)
02		(12.7)	6	260					(2.90)
03		11.2	11	220					2.95
04		10.1	10	(220)					2.90
05		7.4	16	(235)					2.90
06		6.7	23	235					2.80
07		8.6	20	250		---	(1.80)	3.1	2.80
08		11.4	27	220		100	2.70	3.3	3.00
09		13.6	14	215		100	3.40	3.7	2.90
10		(15.0)	8	<210		95	3.80	4.2	(2.80)
11		15.2	10	200		95	4.05		2.65
12	---	(15.4)	6	195	---	95	4.25		(2.60)
13	---	15.3	12	190	---	95	(4.30)		2.45
14	(450)	(15.1)	8	190	---	95	4.30		(2.45)
15	<450	15.5	12	200	---	95	4.10		2.40
16	445	15.3	11	210	---	95	3.85		2.45
17	---	(14.7)	5	220	---	100	3.45		(2.35)
18	---	(14.5)	8	230		105	2.90	3.6	(2.30)
19		(14.0)	9	260		130	(2.20)	3.1	(2.30)
20		13.8	12	360					2.15
21		13.1	12	<440					2.15
22		(13.2)	9	410					(2.25)
23		(12.6)	4	375					----

Time: 0.0°.
Sweep: 1.25 Mc to 20.0 Mc in 10 minutes.

Table 61

Djibouti, French Somaliland (11.6° N, 43.2° E) April 1950

Time	h'F2	foF2—Count		h'F	foF1	h'E	foE	foEs	(M3000)F2
00		(8.6)	4	280		---	----	2.4	----
01		(8.8)	9	270		---	----	2.3	(2.65)
02		(9.0)	4	265		---	----	2.2	----
03		(8.3)	5	260		---	E	2.1	----
04		(8.5)	5	250		---	----	2.3	----
05		9.0	11	230		---	E	2.3	(2.80)
06		(9.1)	9	260		---	1.25	2.3	(2.75)
07		(11.0)	5	250		120	2.80	4.0	----
08		(13.6)	3	240		110	3.40	4.5	----
09		>14.0	2	235		---	3.90	6.8	
10		(12.6)	3	230		---	----	9.4	----
11		(12.1)	5	(225)		---	----	9.4	(2.20)
12		(13.3)	5	(225)		---	----	0.8	(2.15)
13		>13.1	8	(230)		---	----	7.0	----
14		14.0	12	(225)		---	4.20	0.3	(2.20)
15	---	>14.0	8	230		---	4.05	7.0	----
16	---	>12.9	2	240		---	3.65	7.0	----
17	---	(12.6)	2	250		---	----	7.0	----
18		(16.8)	1	290		---	1.00	4.3	----
19		>9.7	8	420		---	E		----
20		(9.0)	7	(460)		---	----		----
21		(9.2)	4	(440)		---	----	1.5	----
22		>9.0	4	330		---	----	2.3	----
23		(8.8)	4	310		---	----	3.2	----

Time: 45.0°E.
Sweep: 1.25 Mc to 20.0 Mc in 10 minutes.

Table 62

Banqui, French Equatorial Africa (4.6° N, 18.6° E) April 1958

Time	h'F2	foF2—Count		h'F	foF1	h'E	foE	foEs	(M3000)F2
00		>10.5	8	252				2.3	----
01		>10.6	10	260				2.6	----
02		>9.8	12	265				3.0	(2.55)
03		(9.6)	12	250				2.8	(2.60)
04		>9.5	22	235				2.8	2.90
05		0.2	24	225				3.1	3.00
06		9.6	24	260		---	(2.00)	4.2	2.00
07		12.0	23	250		110	3.10	4.7	2.00
08		14.7	23	235		105	3.70	4.6	2.60
09		15.2	26	225		105	4.00	4.7	2.40
10		15.6	24	220		105	4.25	4.5	2.20
11		>15.3	24	220		105	4.40		2.10
12		13.9	23	215		105	4.40		2.05
13		>13.5	26	220		105	4.30		2.00
14	---	>13.6	26	225		105	4.15	4.2	----
15		(13.4)	25	230		105	3.80	4.4	----
16		>13.5	24	250		105	3.40	4.2	----
17		>13.3	21	270		110	2.70	4.6	----
18		>11.7	10	325		---	1.65	3.1	----
19		>10.4	0	450		---	E		----
20		>10.1	5	(400)		---	----		----
21		>11.6	3	350		---	----		----
22		>11.4	3	(300)		---	----		----
23		>9.5	7	280		---	----	1.7	----

Time: 15.0°E.
Sweep: 1.2 Mc to 17.0 Mc in 1 minute.

Table 63

Tahiti, Society Is. (17.7° S, 149.3° W) April 1950

Time	h'F2	foF2—Count		h'F	foF1	h'E	foE	foEs	(M3000)F2
00		14.3	25	230		---	E	3.1	2.80
01		12.4	24	245		---	(0.90)	3.0	2.80
02		10.8	24	235		---	E	3.1	2.90
03		0.6	23	230		---	E	2.6	2.55
04		8.1	25	200		---	(0.95)	2.7	2.65
05		6.2	26	300		---	(1.00)	3.0	2.70
06	---	10.2	28	310		---	E	3.1	2.75
07		14.0	24	250		115	2.60	3.1	3.00
08		16.0	28	245		105	3.35	3.4	3.00
09		D	24	240		105	3.70	3.8	2.80
10		D	25	230		105	(4.00)	4.2	2.70
11	---	16.4	27	230		105	----		2.60
12	410	16.5	27	230	---	105	----		2.50
13	405	D	29	240	---	105	----	3.1	2.50
14	420	0	29	245	---	105	3.90	4.4	2.45
15	420	D	29	245	---	105	3.60	4.9	2.40
16	405	D	29	250		110	3.15	4.3	2.40
17	---	D	28	260		120	2.6[illegible]	3.7	(2.40)
18		D	20	305		---	----	3.1	----
19		D	28	320		---	----	3.0	----
20		D	29	265		---	----	3.1	----
21		D	27	250		---	----	3.1	----
22		D	27	250		---	E	3.1	(2.75)
23		16.0	27	230		---	----	3.1	2.80

Time: 150.0°W.
Sweep: 1.2 Mc to 17.0 Mc in 1 minute.

Table 64

Tananarive, Madagascar (18.0° S, 47.5° E) April 1958

Time	h'F2	foF2—Count		h'F	foF1	h'E	foE	foEs	(M3000)F2
00		>5.9	12	250				2.6	----
01		5.8	14	270		---	----		(2.85)
02		5.0	17	260		---	----	3.2	(2.70)
03		5.0	21	265		---	----	2.2	(2.70)
04		4.6	23	280		---	----	3.0	2.65
05		4.2	27	<290		---	E	2.9	2.70
06		(6.2)	7	270		---	E	2.9	----
07		11.4	12	250		120	2.50	3.1	(3.05)
08		12.4	14	245		110	3.30	(3.7)	3.05
09		(13.6)	8	240		110	----	(3.9)	----
10		(13.4)	0	---		110	----		----
11		(13.0)	8	---		105	----		----
12	---	(12.4)	4	---		---	----		----
13	---	(12.2)	4	---		---	----		----
14		(12.2)	0	---		110	----		----
15		12.2	14	250		115	3.60	4.0	(2.50)
16		(12.0)	17	255		125	3.20	3.7	2.50
17		(12.0)	22	260		125	2.60	3.6	2.60
18		11.8	16	260				3.4	(2.65)
19		(11.4)	15	270				3.4	----
20		(10.6)	0	265				2.0	----
21		(9.0)	7	260				2.8	(2.90)
22		0.6	14	260		---	----	2.7	(2.90)
23		7.6	14	250		---	----	2.8	(2.80)

Time: 45.0°E.
Sweep: 1.25 Mc to 20.0 Mc in 10 minutes.

Table 65

Tsumeb, South W. Africa (19.2° S, 17.7° E) April 1950

Time	h'F2	foF2—Count		h'F	foF1	h'E	foE	fEs	(M3000)F2
00		7.42	30	250				2.0	2.78
01		6.60	30	250				2.4	2.71
02		6.03	30	250					2.03
03		4.96	30	235				1.8	2.92
04		4.42	28	235				1.8	2.86
05		3.69	29	260				1.8	2.66
06		6.80	29	275		130	1.31	2.8	2.74
07		10.68	30	232		110	2.65	3.4	3.07
08		12.75	29	230		105	3.31	3.5	2.97
09		13.92	29	227		108	3.70	3.8	2.82
10		14.42	30	220		105	3.92	4.4	2.74
11		14.31	29	220		---	4.09	4.3	2.66
12	---	14.10	30	225	---	---	4.14		2.56
13	---	14.20	29	227	---	---	4.09	4.5	2.47
14		14.30	29	235		---	3.95	4.7	2.47
15		14.08	29	245		110	3.67	5.2	2.48
16		13.60	30	245		110	3.25	4.4	2.49
17		13.42	30	250		115	2.35	3.3	2.50
18		13.29	20	250		---	----	3.0	2.67
19		12.38	20	250				2.9	2.71
20		11.60	29	250				2.8	2.73
21		11.14	30	240				2.6	2.82
22		10.00	29	232				2.3	2.04
23		8.45	30	235				2.3	2.77

Time: 15.0°E.
Sweep: 1.0 Mc to 16.0 Mc in 4 minutes.

Table 66

Lulea, Sweden (65.6° N, 22.1° E) May 1957

Time	h'F2	foF2—Count		h'F	foF1	h'E	foE	foEs	(M3000)F2
00		>7.0	0	(300)				<1.5	---
01		(7.5)	15	305		---	---		---
02		>7.1	14	310		---	2.1		(2.5)
03	---	(7.0)	25	290	---	165	2.0		(2.4)
04	---	6.9	26	260	---	130	2.5		2.5
05	(415)	7.1	26	250	4.5	110	3.0		2.5
06	415	7.0	29	250	4.9	110	3.2		2.5
07	410	7.6	25	240	5.0	---	3.3		2.5
08	420	7.5	29	230	5.4	---	3.5		2.5
09	430	7.4	30	220	5.4	---	<3.6		2.5
10	460	7.5	29	220	5.5	---	<3.6		2.5
11	445	7.8	30	220	5.5	---	---		2.4
12	455	7.6	29	(240)	5.5	---	---		2.5
13	440	7.8	27	225	5.6	---	---		2.5
14	445	7.7	28	220	5.5	---	(3.6)		2.6
15	435	7.5	29	225	5.4	---	<3.6		2.6
16	(415)	7.5	29	235	5.1	---	<3.5		2.6
17	---	7.5	29	250	---	---	2.9		2.7
18		>7.0	20	250		---	2.9		2.6
19		(7.4)	25	250		---	<2.5		(2.7)
20		>7.3	21	270		---	(2.0)		---
21		>7.0	14	275			<1.0		---
22		>7.0	6	(280)			---		
23		>7.0	7	(300)			---		

Time: 15.0°E.
Sweep: 1.5 Mc to 10.0 Mc in 9 minutes, automatic operation.

Table 67

Lwiro, Belgian Congo (2.3° S, 28.8° E) May 1957

Time	h'F2	foF2—Count		h'F	foF1	h'E	foE	foEs	(M3000)F2
00		>10.0	30	210				(2.0)	----
01		>10.0	30	210				(1.8)	----
02		>10.0	29	210				(1.7)	<3.15
03		>9.6	30	225				(1.9)	3.13
04		9.2	29	220				(2.0)	3.30
05		7.0	28	220				(2.1)	<3.27
06		8.0	28	250		---	----	(2.1)	3.19
07	250	>11.1	30	235	---	119	2.70	3.1	<3.27
08	260	>13.2	29	230	---	111	3.40	3.6	<3.32
09	265	>13.0	31	220	---	111	3.80	3.9	<3.08
10	310	>12.6	31	210	---	109	4.00		<2.86
11	(345)	>12.5	31	210	---	---	4.15		<2.88
12	400	>12.3	30	200	(5.2)	---	4.25		----
13	420	>10.0	30	205	(5.1)	---	4.10		----
14	415	>10.0	30	210	---	---	4.00		
15	380	>11.5	31	220	---	111	3.70		
16	(350)	>10.0	30	230	---	111	3.35	3.7	
17	---	>10.0	31	240	---	115	2.75	3.1	----
18		>10.0	31	275				(2.5)	----
19		>10.0	31	295				(2.3)	
20		>9.6	31	290				(2.0)	
21		>9.6	30	235				(1.8)	
22		>9.6	29	220				(1.8)	
23		>10.0	29	220				(1.6)	----

Time: Local.
Sweep: 1.25 Mc to 25.0 Mc in 10 minutes, automatic operation.

Table 68

Lulea, Sweden (65.6° N, 22.1° E) October 1956

Time	h'F2	foF2—Count		h'F	foF1	h'E	foE	foEs	(M3000)F2
00		2.5	21	330					2.75
01		2.5	22	335					2.7
02		2.5	24	320					2.8
03		2.5	24	340					2.9
04		2.5	21	340					2.9
05		2.4	20	310					2.95
06		3.8	27	275		---	E		3.0
07		5.0	29	250		150	1.8		3.0
08		6.0	29	240		140	2.0	2.0	3.1
09		6.0	26	230		125	2.2	2.6	3.3
10		7.0	29	240		110	2.4		3.3
11		7.0	29	230		125	2.5		3.3
12		8.0	30	225		110	2.4		3.2
13		8.0	29	240		125	2.3		3.3
14		8.0	27	225		130	2.1		3.25
15		7.2	28	240		145	1.9	1.9	3.2
16		7.3	27	225		---	1.7	1.9	3.05
17		6.8	23	235		---	---		3.0
18		6.0	27	240					2.9
19		4.8	23	245					2.8
20		4.2	24	260					2.8
21		>3.0	23	290					2.8
22		(3.0)	24	300					2.8
23		>3.0	23	300					2.8

Time: 15.0°E.
Sweep: 1.5 Mc to 10.0 Mc in 9 minutes, automatic operation.

Table 69

Freiburg, Germany (48.1° N, 7.8° E) May 1957

Time	h'F2	foF2—Count		h'F	foF1	h'E	foE	foEs	(M3000)F2
00		4.3	31	265				1.0	2.98
01		4.1	29	270				1.5	2.90
02		3.9	31	265				1.4	2.89
03		3.6	30	265				1.4	2.94
04		3.5	30	265				1.4	2.97
05	280	4.1	31	245	2.75	133	1.55	1.8	3.14
06	315	4.6	30	235	3.50	111	2.15	2.3	3.16
07	310	4.9	28	230	3.90	109	2.55	3.0	3.16
08	310	5.3	29	230	4.10	107	2.80	3.5	3.12
09	325	5.6	27	220	4.20	105	3.05	3.5	3.13
10	310	5.7	28	210	4.35	103	3.20	3.5	3.20
11	330	5.8	26	205	4.40	105	3.20	3.9	3.16
12	340	5.7	27	210	4.50	103	3.30	4.0	3.16
13	350	5.6	29	220	4.40	105	3.25	3.5	3.02
14	350	5.8	29	220	4.40	103	3.20	3.3	3.02
15	330	5.7	29	225	4.30	105	3.10	3.4	3.08
16	320	5.8	30	230	4.10	107	2.90	3.2	3.09
17	295	6.0	30	240	3.80	111	2.65	3.1	3.10
18	280	6.4	28	(240)	3.40	111	2.20	3.2	3.13
19	270	6.7	29	255		---	----	3.2	3.10
20		6.8	31	250				2.4	3.11
21		6.5	31	240				1.9	3.13
22		5.7	31	245				2.0	3.10
23		4.9	31	255				1.6	3.00

Time: Local.
Sweep: 1.25 Mc to 20.0 Mc in 10 minutes, automatic operation.

Table 70

Lulea, Sweden (65.6° N, 22.1° E) April 1953

Time	h'F2	foF2—Count		h'F	foF1	h'E	foE	foEs	(M3000)F2
00		(2.6)	12	---				2.0	
01									
02		(2.9)	11	* ---					
03									
04		2.8	16	270		---	E		
05									
06	---	3.5	20	220	---	105	2.2		
07									
08	350	4.1	15	210	3.6	105	2.6		
09									
10	310	4.5	19	200	3.9	100	2.7		
11									
12	300	4.6	17	200	4.0	100	2.8		
13									
14	300	4.6	15	200	3.6	100	2.7		
15									
16	---	4.7	15	210	---	100	2.5		
17									
18		4.5	23	240		---	1.8		
19									
20		3.0	17	---					
21									
22		(2.5)	15	---				2.0	
23									

Time: 15.0°E.
Sweep: 1.5 Mc to 10.0 Mc in 9 minutes, automatic operation.

Table 71

Lulea, Sweden (65.6° N, 22.1° E) March 1953

Time	h'F2	foF2—Count		h'F	foF1	h'E	foE	foEs	(M3000)F2
00		(2.5)	8	(350)				2.5	
01									
02		(2.2)	6	(340)				2.0	
03									
04		(2.0)	8	(320)					
05									
06	---	3.0	16	260	---	---	---		
07									
08	---	4.0	19	230	---	115	2.2		
09									
10	(275)	4.5	20	220	3.6	110	2.5		
11									
12	(290)	5.0	17	210	3.7	110	2.5		
13									
14	---	5.0	15	225	---	110	2.5		
15									
16	---	4.8	22	225	---	125	2.0		
17									
18		3.7	19	230		---	---		
19									
20		3.0	11	250				<1.8	
21									
22		(2.6)	8	(290)				3.1	
23									

Time: 15.0°E.
Sweep: 1.5 Mc to 10.0 Mc in 9 minutes, automatic operation.

Table 72

Lulea, Sweden (65.6° N, 22.1° E) February 1953

Time	h'F2	foF2—Count		h'F	foF1	h'E	foE	foEs	(M3000)F2
00		---	0	---				2.5	
01									
02		(2.4)	4	---				(2.3)	
03									
04		(2.5)	4	(300)					
05									
06		(2.0)	3	---					
07									
08		3.4	20	230		---	1.7		
09									
10		4.5	18	230		125	2.1		
11									
12		5.5	11	230		125	2.2		
13									
14		4.8	15	230		135	2.1		
15									
16		4.0	17	225		---	1.7		
17									
18		(3.0)	14	245					
19									
20		(2.2)	5	---					
21									
22		(2.2)	2	---					
23									

Time: 15.0°E.
Sweep: 1.5 Mc to 10.0 Mc in 9 minutes, automatic operation.

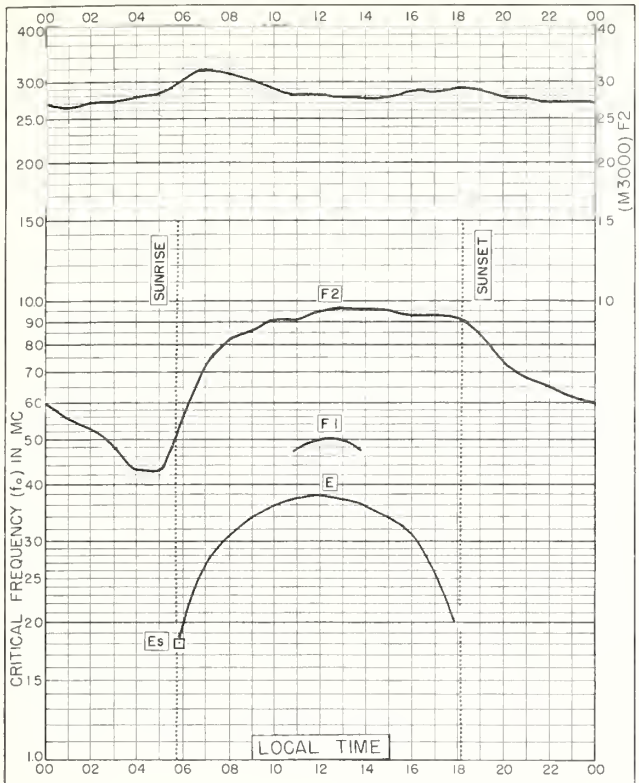


Fig. 1. WASHINGTON, D. C.
38.7°N, 77.1°W SEPTEMBER 1960

NBS 503

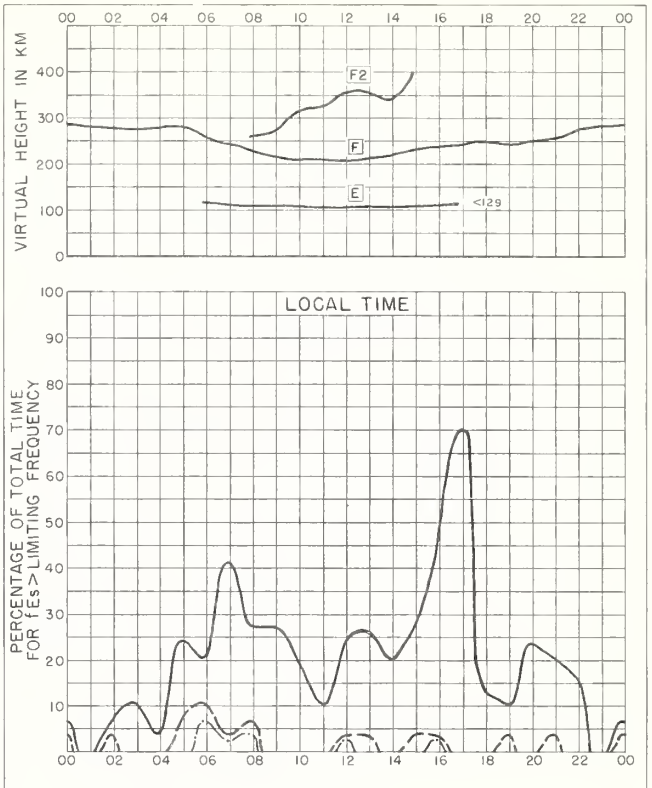


Fig. 2. WASHINGTON, D. C. SEPTEMBER 1960

NBS 490

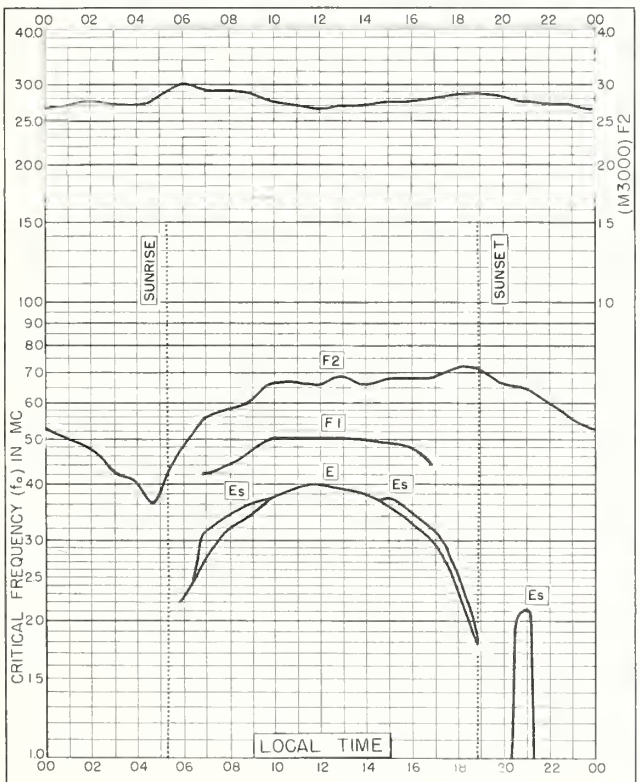


Fig. 3. WASHINGTON, D. C.
38.7°N, 77.1°W AUGUST 1960

NBS 503

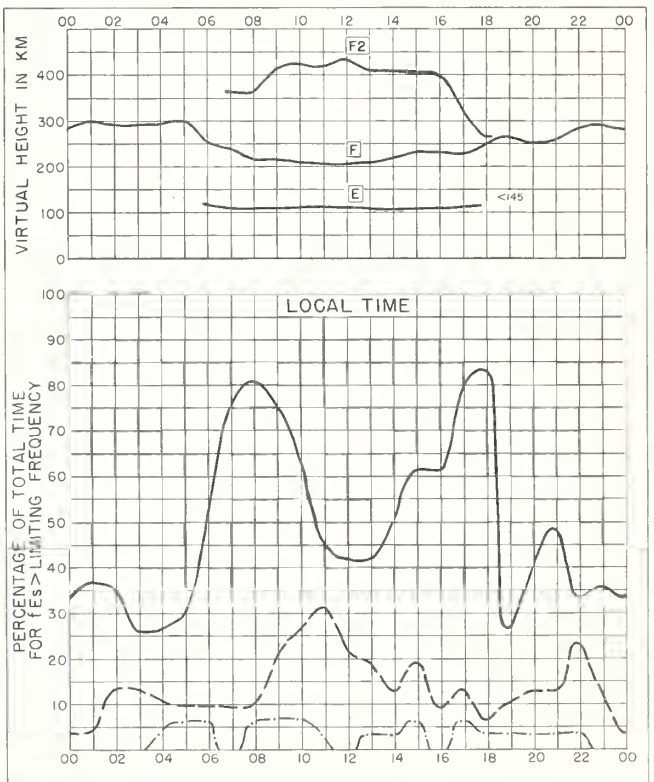


Fig. 4. WASHINGTON, D. C. AUGUST 1960

NBS 490

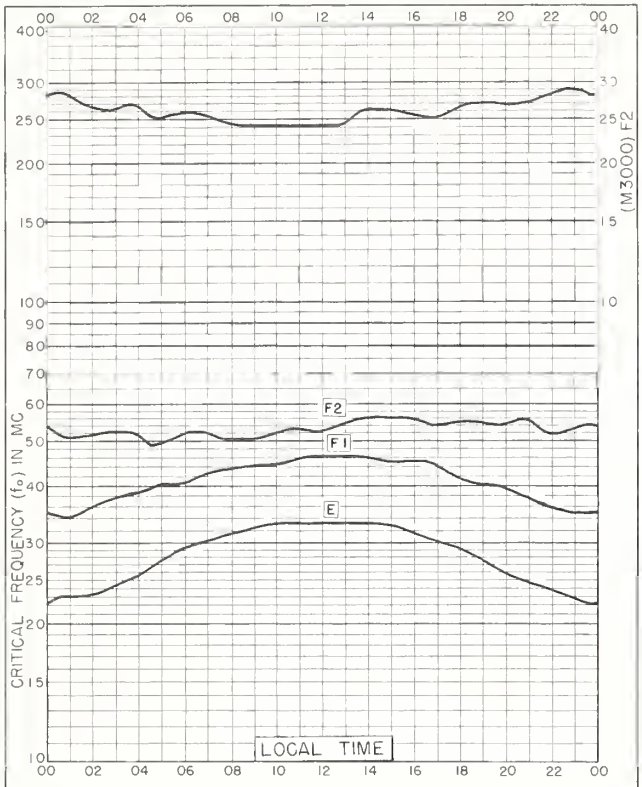


Fig. 5. RESOLUTE BAY, CANADA
74.7°N, 94.9°W JUNE 1960

NBS 503

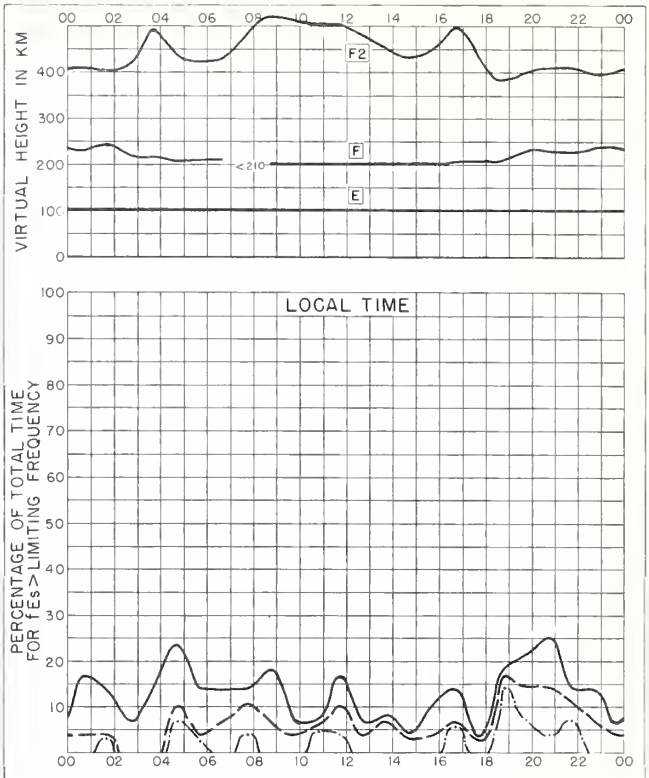


Fig. 6. RESOLUTE BAY, CANADA JUNE 1960

NBS 490

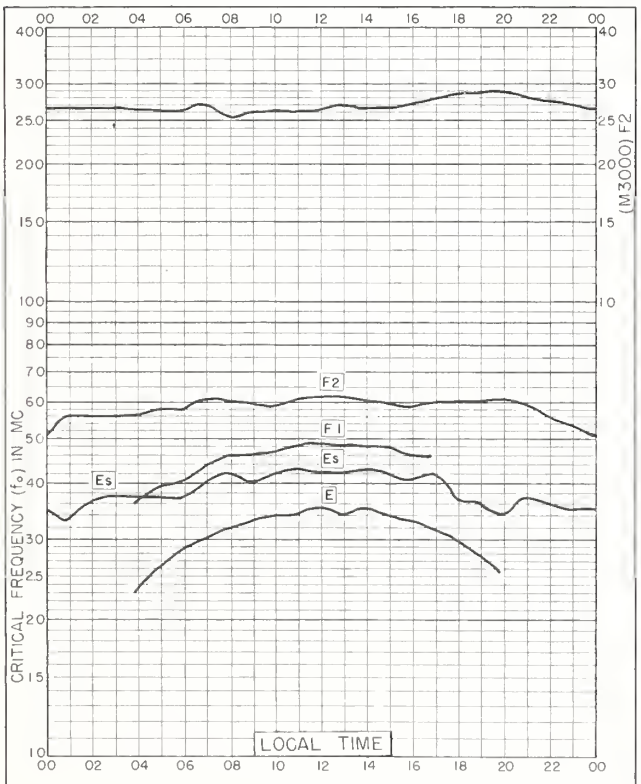


Fig. 7. SODANKYLA, FINLAND
67.4°N, 26.6°E JUNE 1960

NBS 503

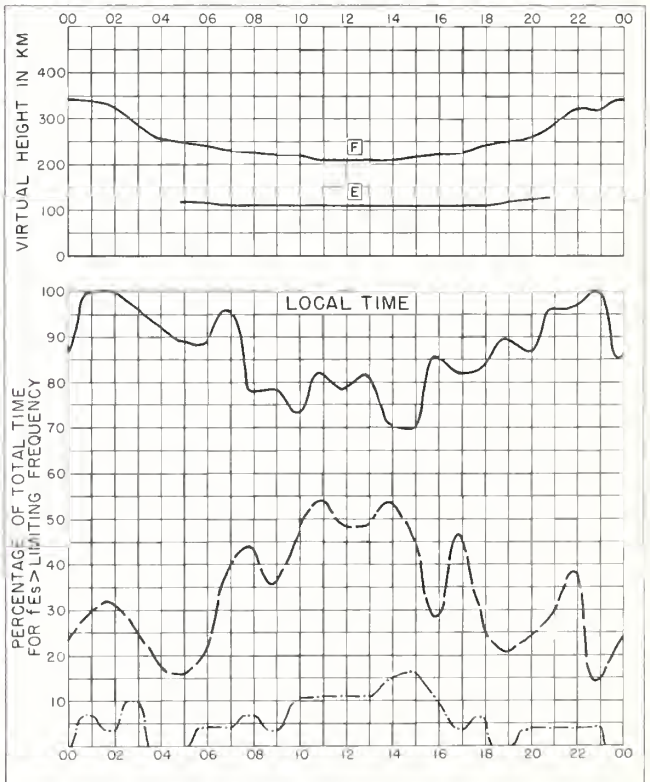


Fig. 8. SODANKYLA, FINLAND JUNE 1960

NBS 490

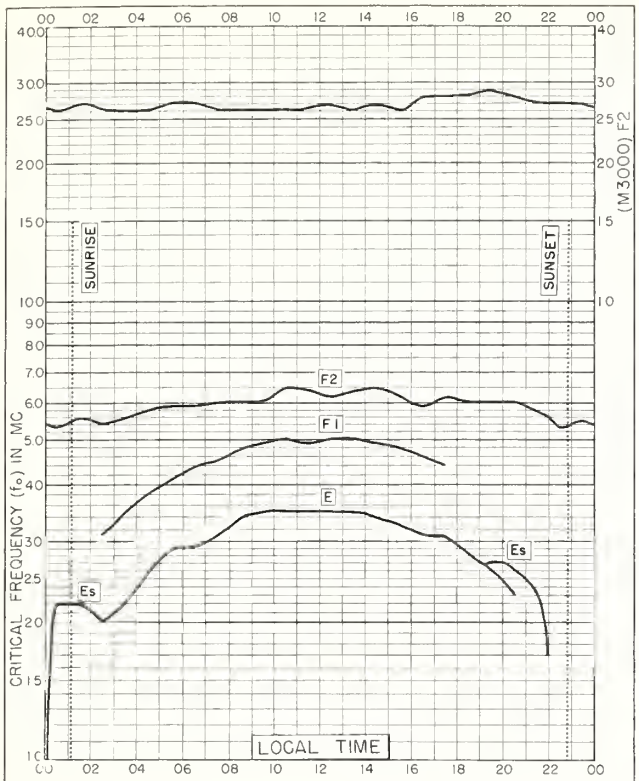


Fig. 9. LULEA, SWEDEN
65.6°N, 22.1°E JUNE 1960

NBS 503

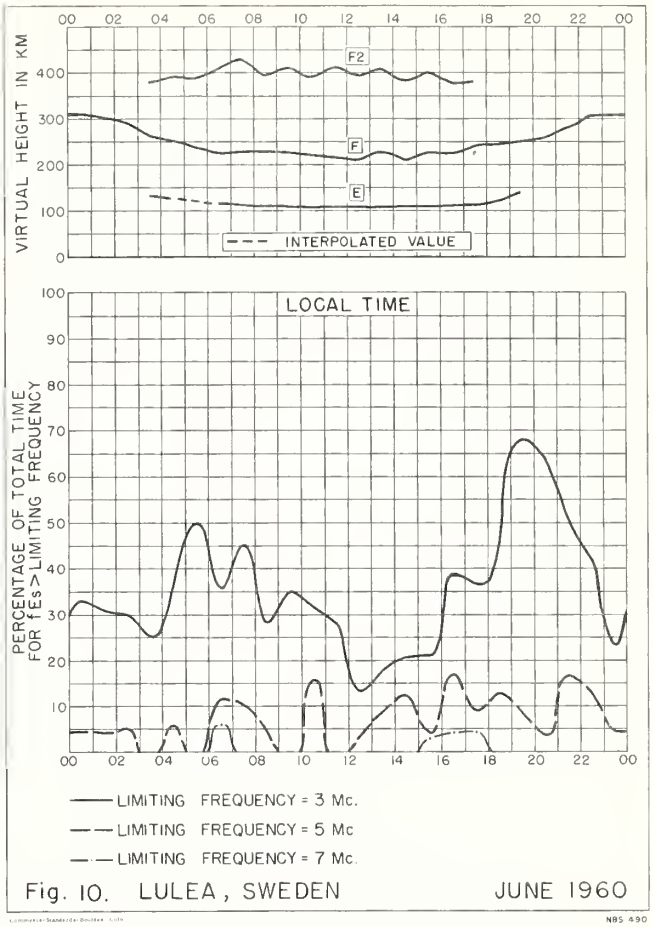


Fig. 10. LULEA, SWEDEN JUNE 1960

NBS 490

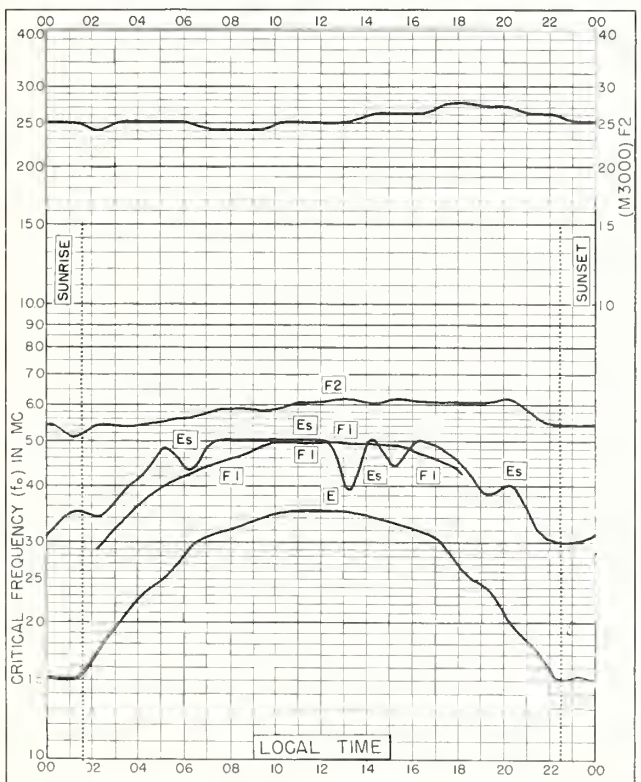


Fig. 11. LYCKSELE, SWEDEN
64.6°N, 18.8°E JUNE 1960

NBS 503

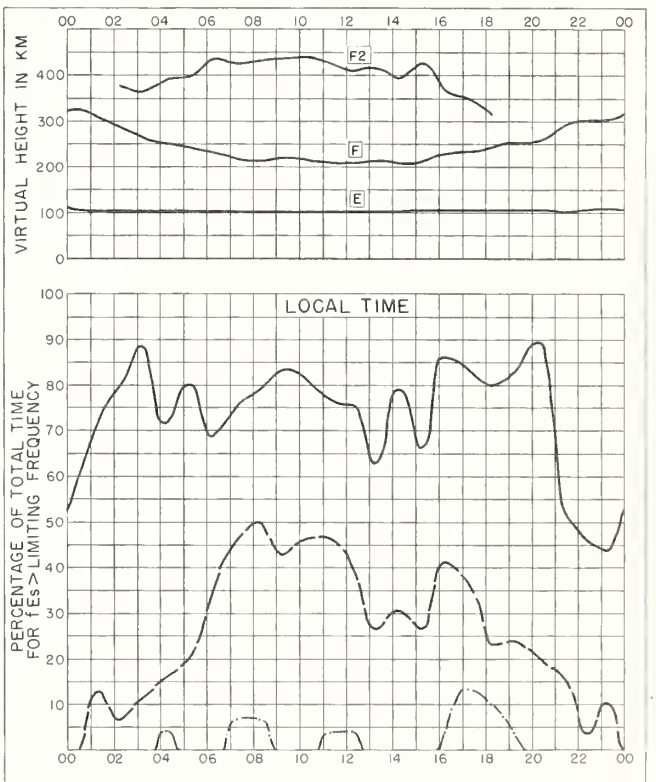


Fig. 12. LYCKSELE, SWEDEN JUNE 1960

NBS 490

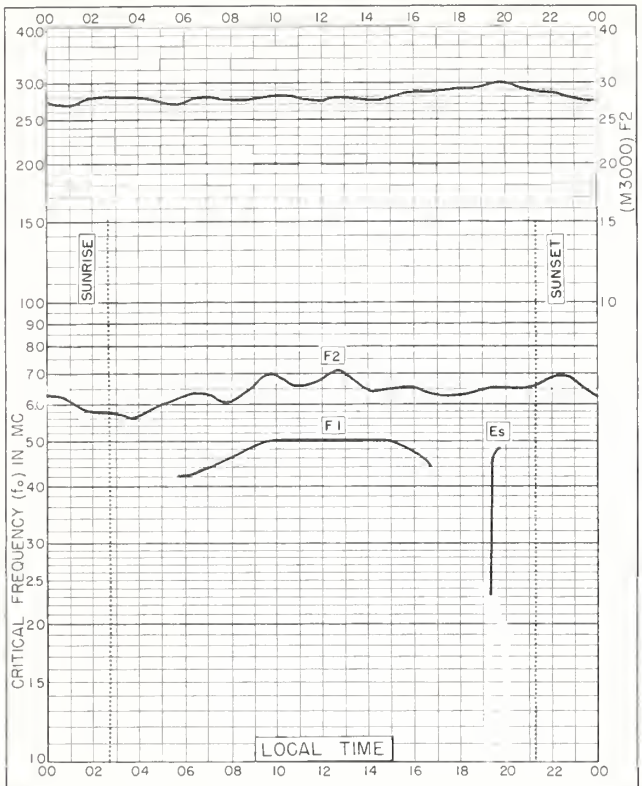


Fig. 13. NURMIJARVI, FINLAND
60.5°N, 24.6°E JUNE 1960

NBS 503

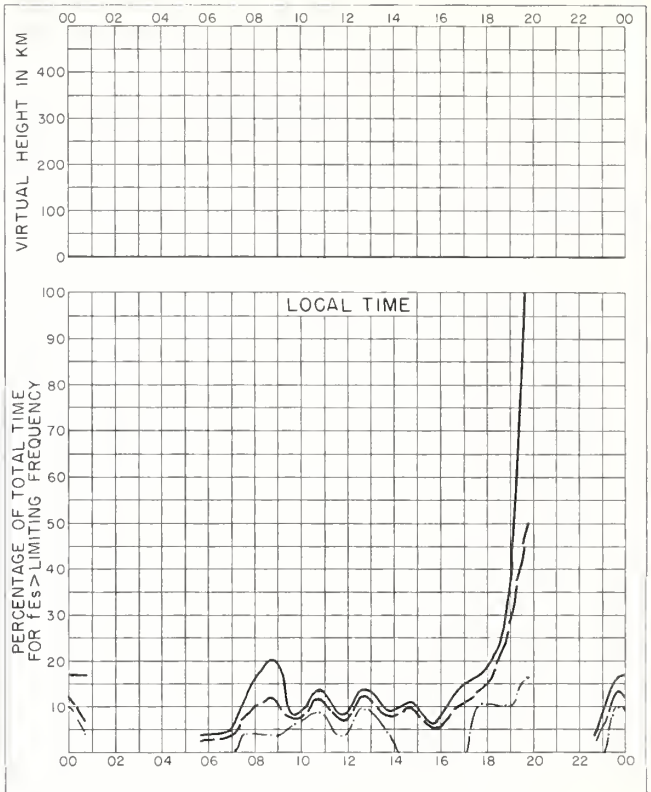


Fig. 14. NURMIJARVI, FINLAND JUNE 1960

NBS 490

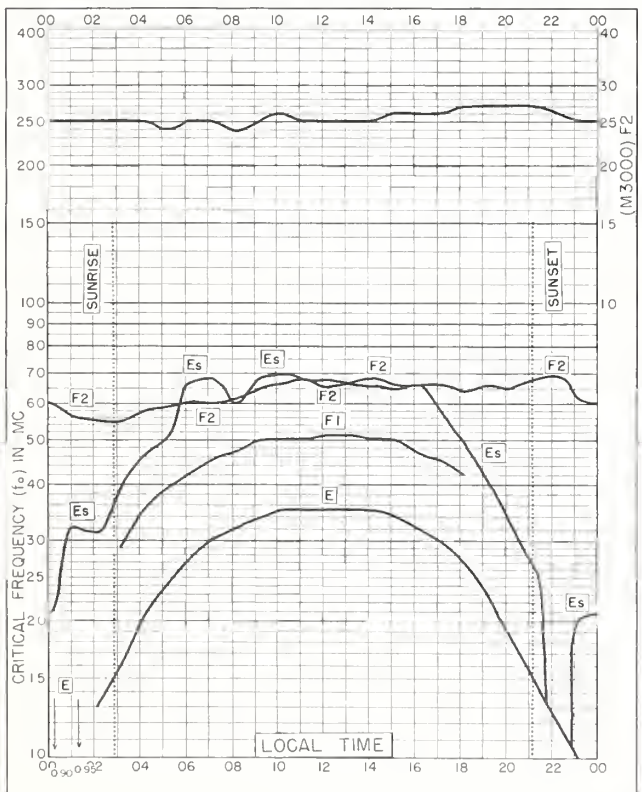


Fig. 15. UPSALA, SWEDEN
59.8°N, 17.6°E JUNE 1960

NBS 503

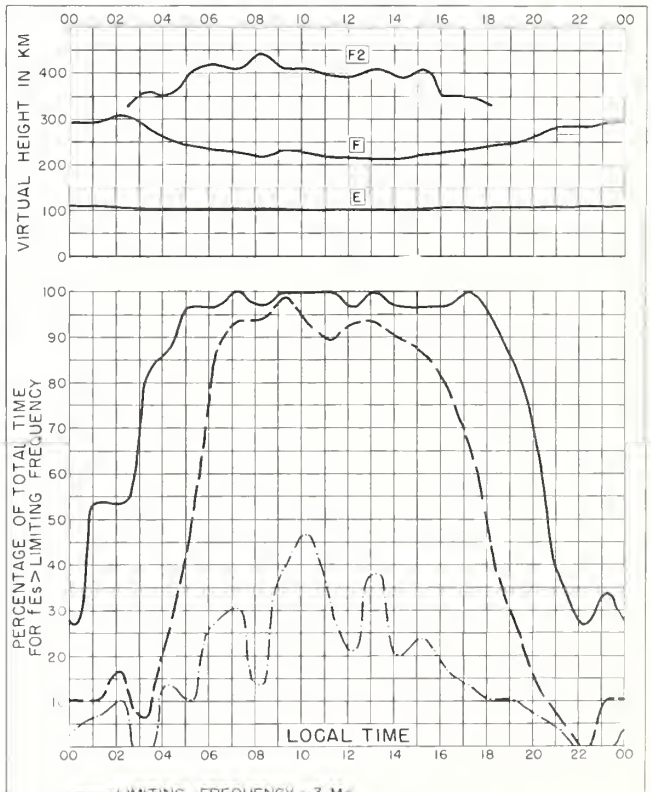


Fig. 16. UPSALA, SWEDEN JUNE 1960

NBS 490

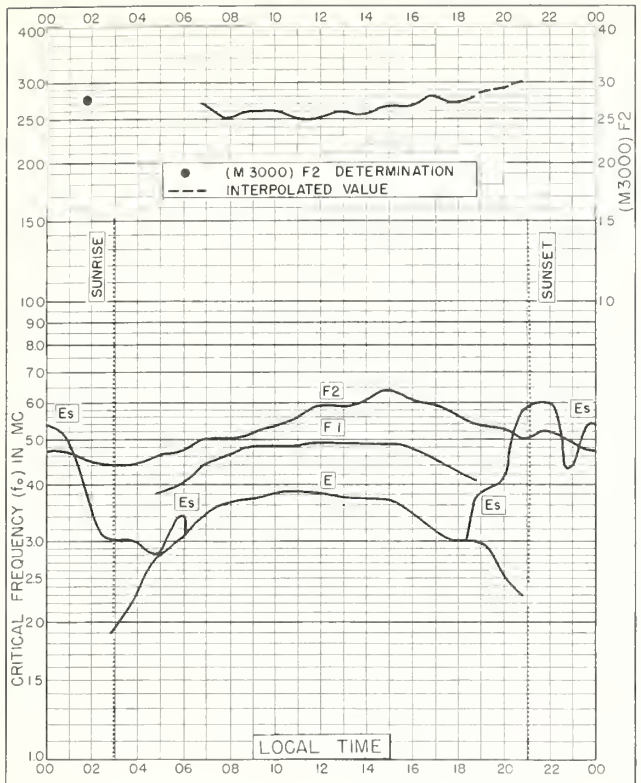


Fig. 17. CHURCHILL, CANADA
58.8°N, 94.2°W JUNE 1960

NBS 503

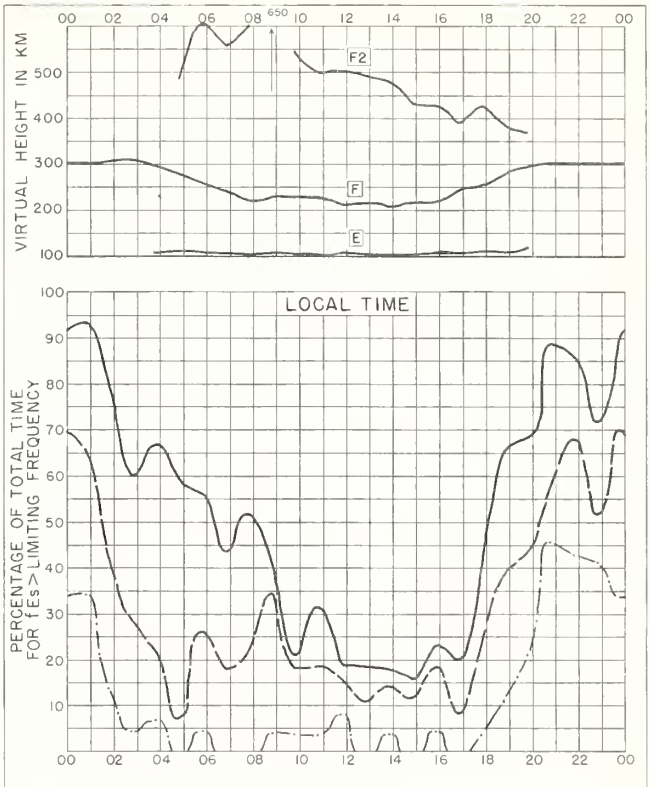


Fig. 18. CHURCHILL, CANADA JUNE 1960

NBS 490

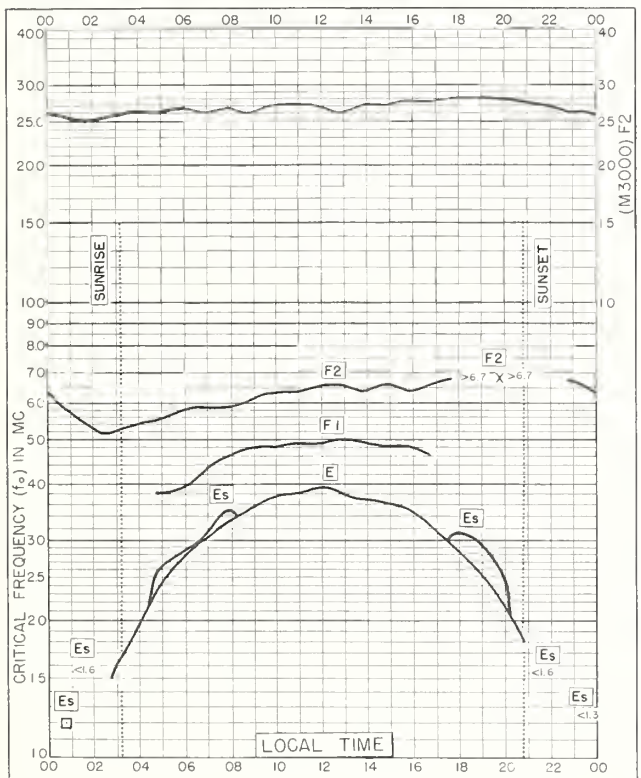


Fig. 19. INVERNESS, SCOTLAND
57.4°N, 4.2°W JUNE 1960

NBS 503

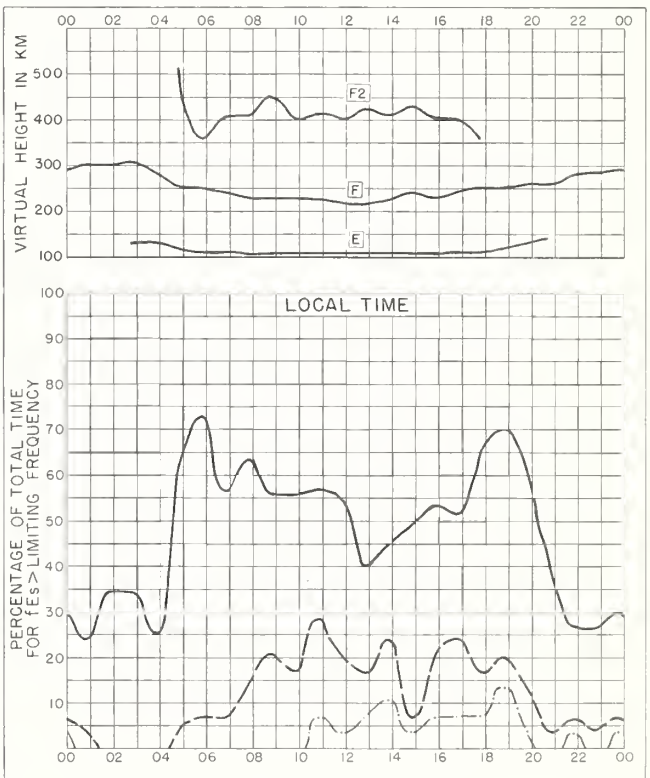


Fig. 20. INVERNESS, SCOTLAND JUNE 1960

NBS 490

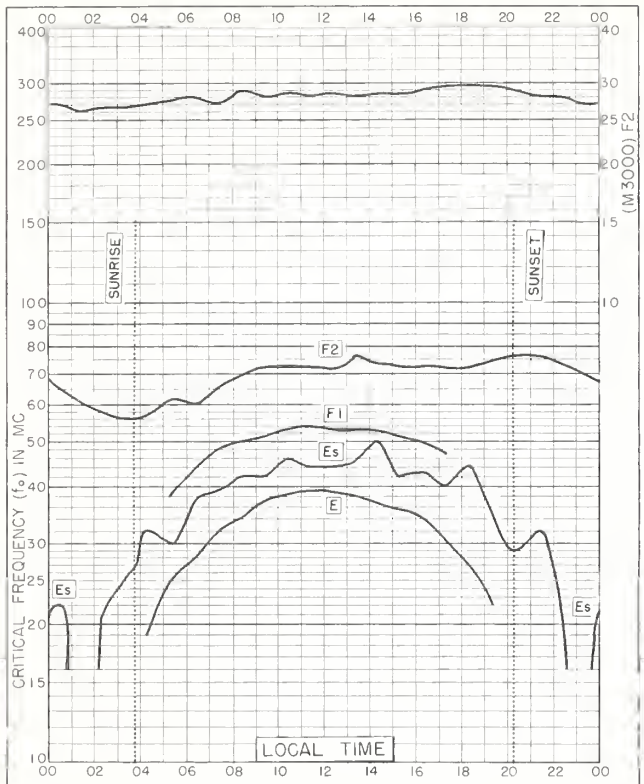


Fig. 21. De BILT, HOLLAND
52.1°N, 5.2°E JUNE 1960

NBS 503

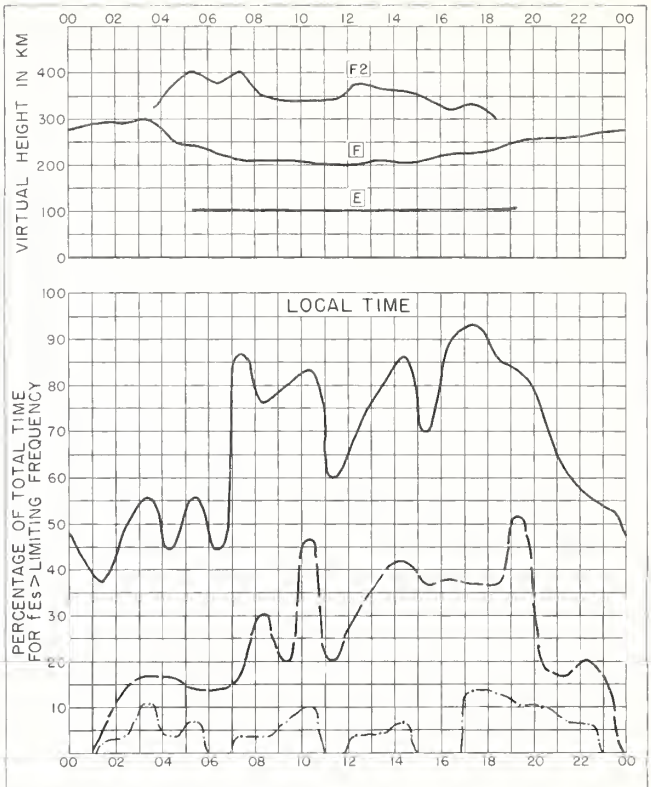


Fig. 22. De BILT, HOLLAND JUNE 1960

NBS 490

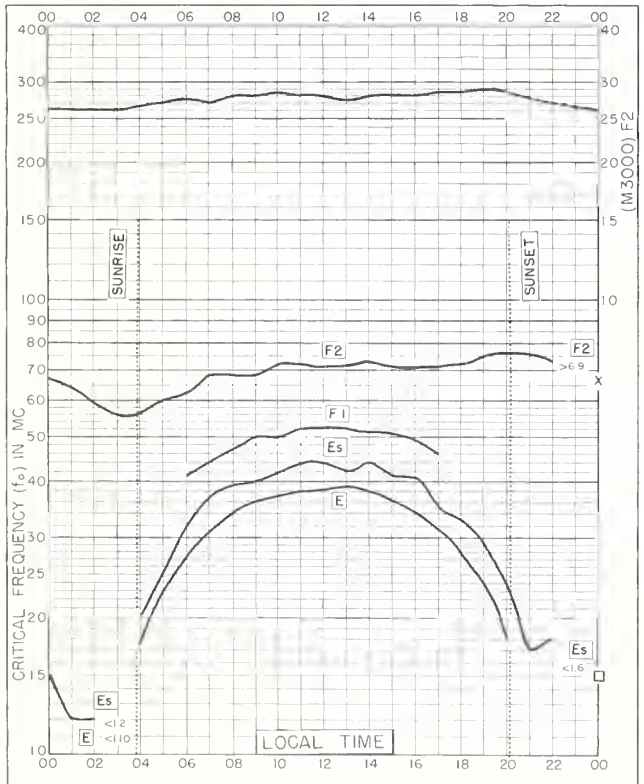


Fig. 23. SLOUGH, ENGLAND
51.5°N, 0.6°W JUNE 1960

NBS 503

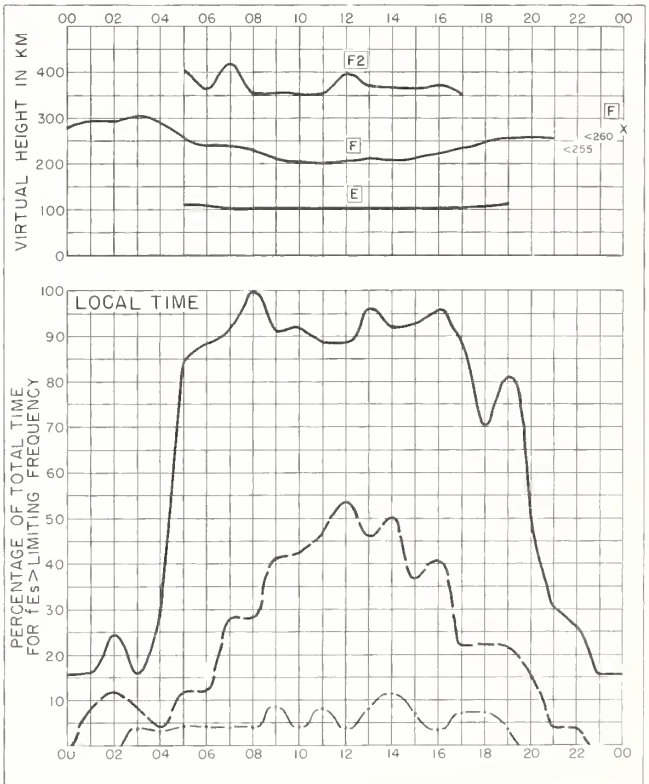


Fig. 24. SLOUGH, ENGLAND JUNE 1960

NBS 490

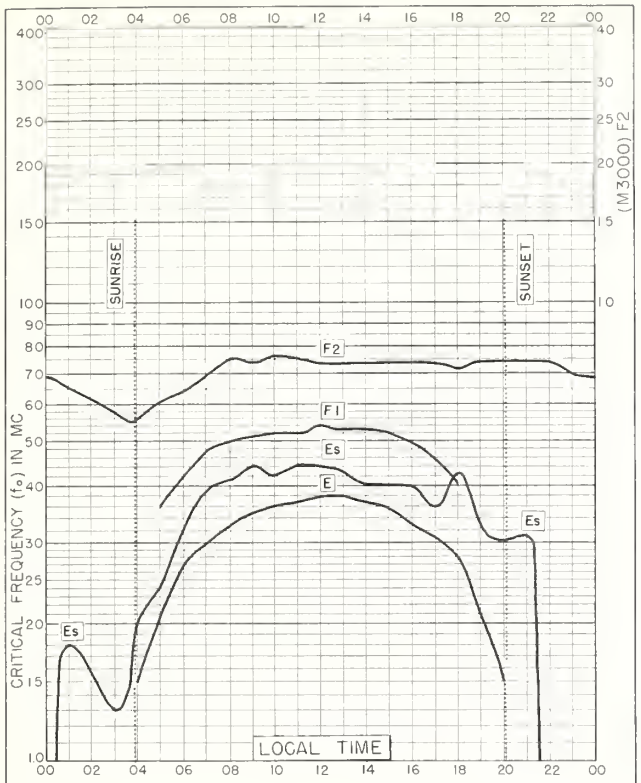
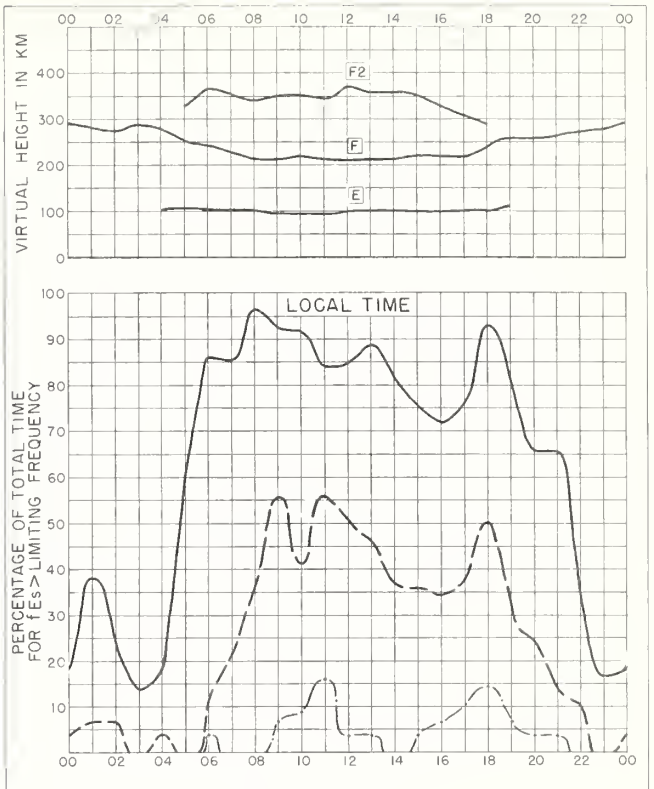


Fig. 25. PRUHONICE, CZECHOSLOVAKIA
50.0°N, 14.6°E JUNE 1960



JUNE 1960

Fig. 26. PRUHONICE, CZECHOSLOVAKIA

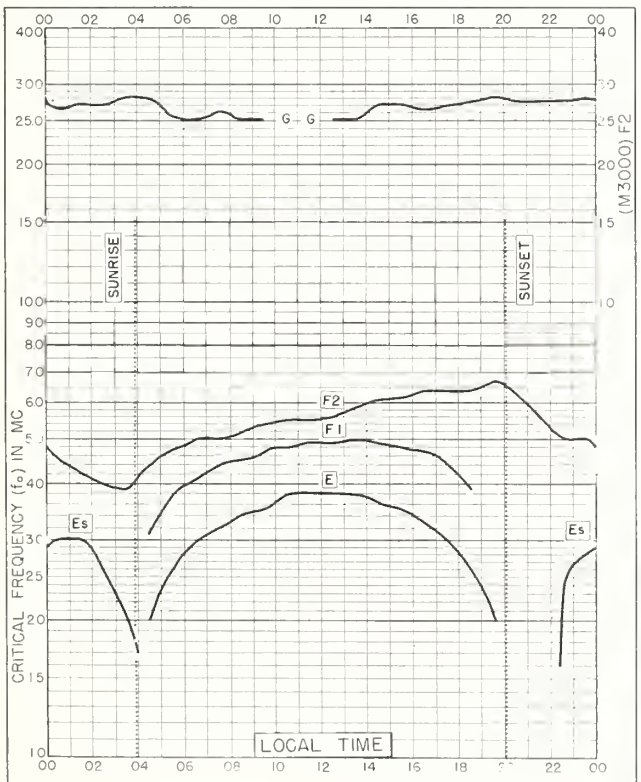


Fig. 27. WINNIPEG, CANADA
49.9°N, 97.4°W JUNE 1960

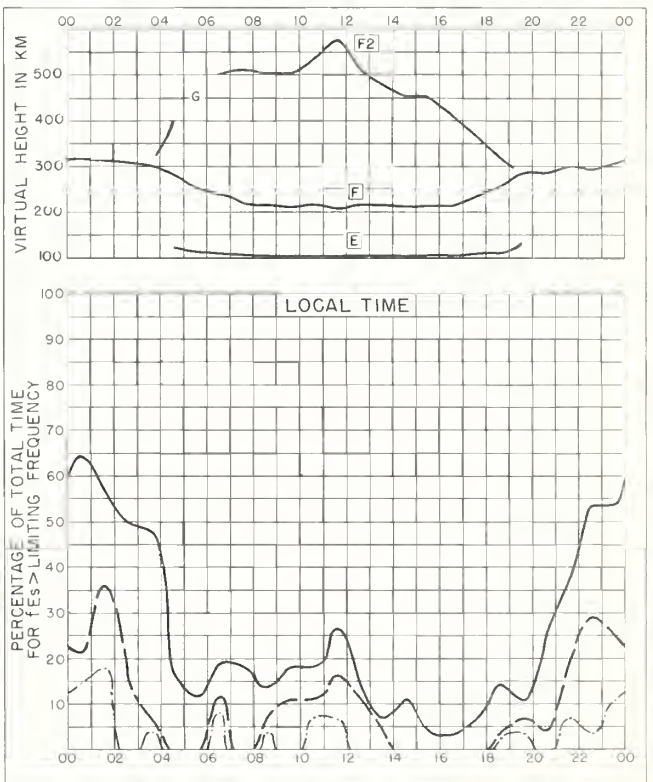


Fig. 28. WINNIPEG, CANADA JUNE 1960

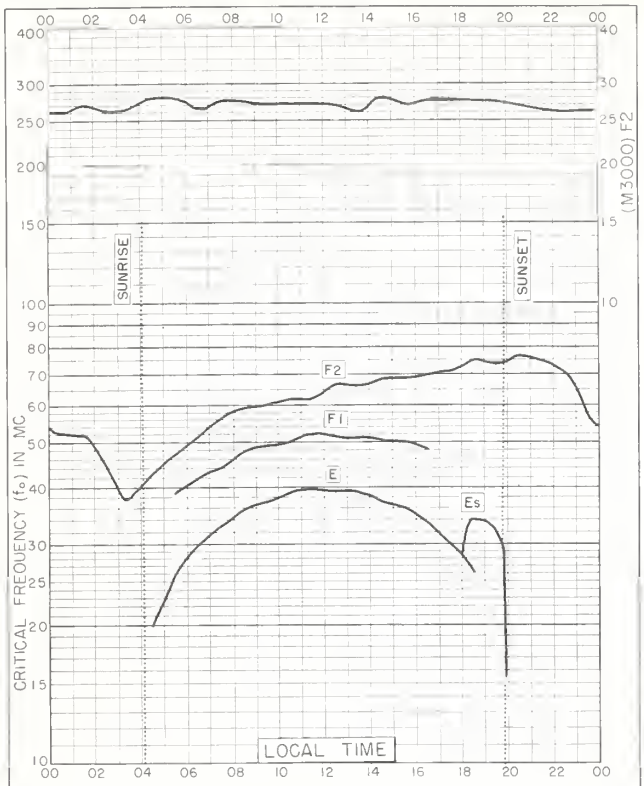


Fig. 29. ST. JOHN'S, NEWFOUNDLAND
47.6°N, 52.7°W JUNE 1960

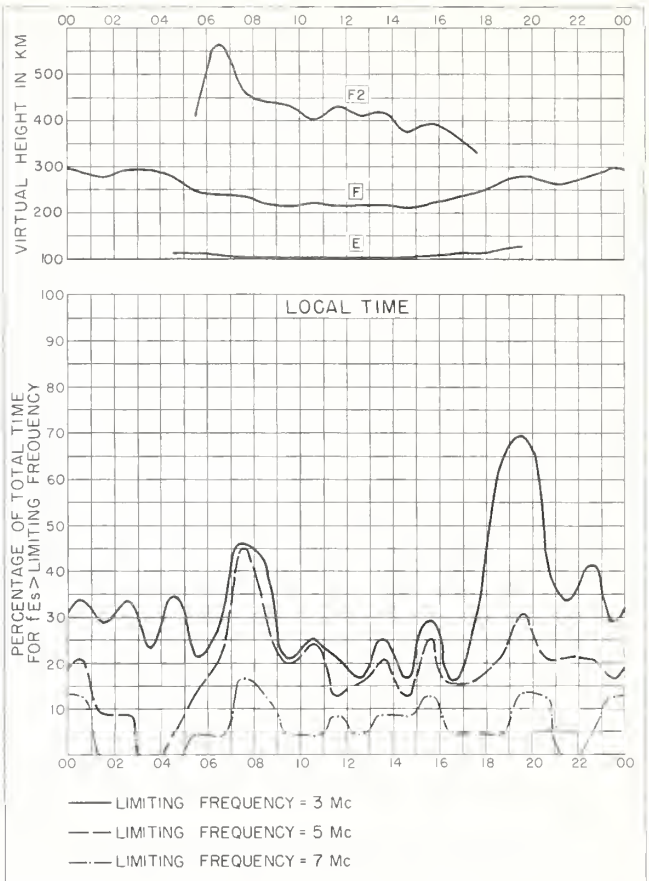


Fig. 30. ST. JOHN'S, NEWFOUNDLAND JUNE 1960

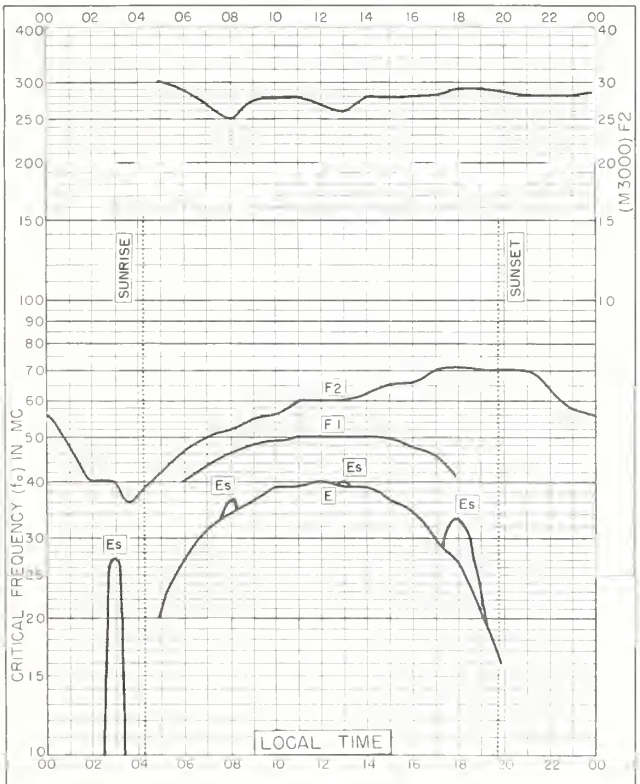


Fig. 31. OTTAWA, CANADA
45.4°N, 75.9°W JUNE 1960

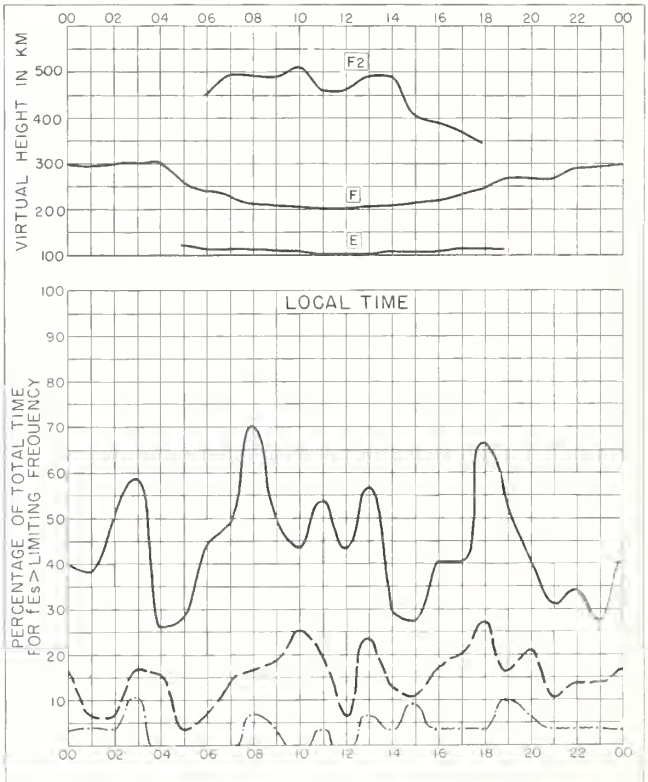


Fig. 32. OTTAWA, CANADA JUNE 1960

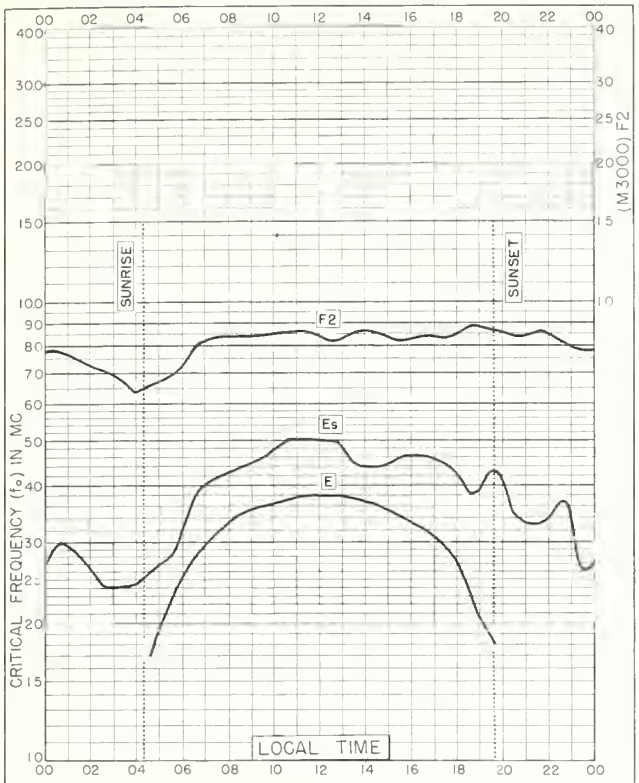


Fig. 33. GENOA (MONTE CAPELLINO), ITALY
44.6°N, 9.0°E JUNE 1960

NBS 503

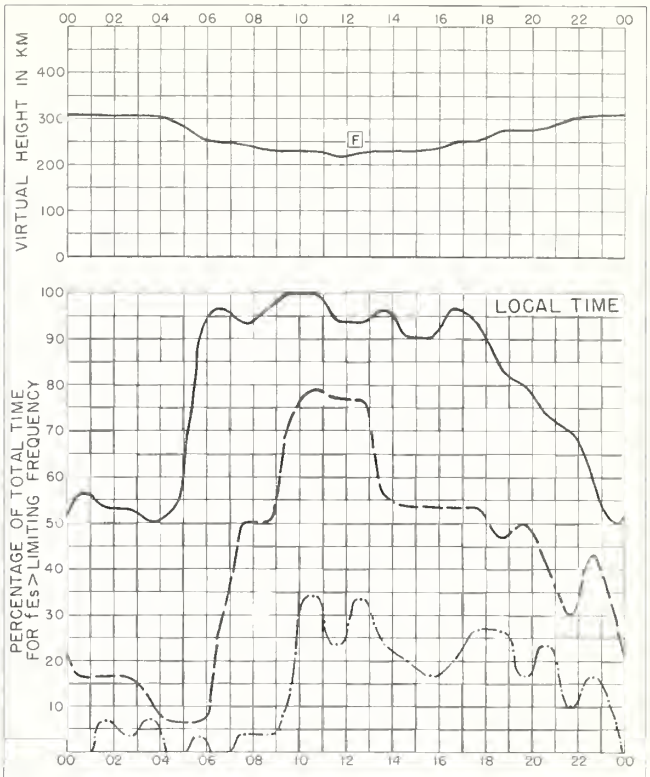


Fig. 34. GENOA (MONTE CAPELLINO), ITALY JUNE 1960

NBS 490

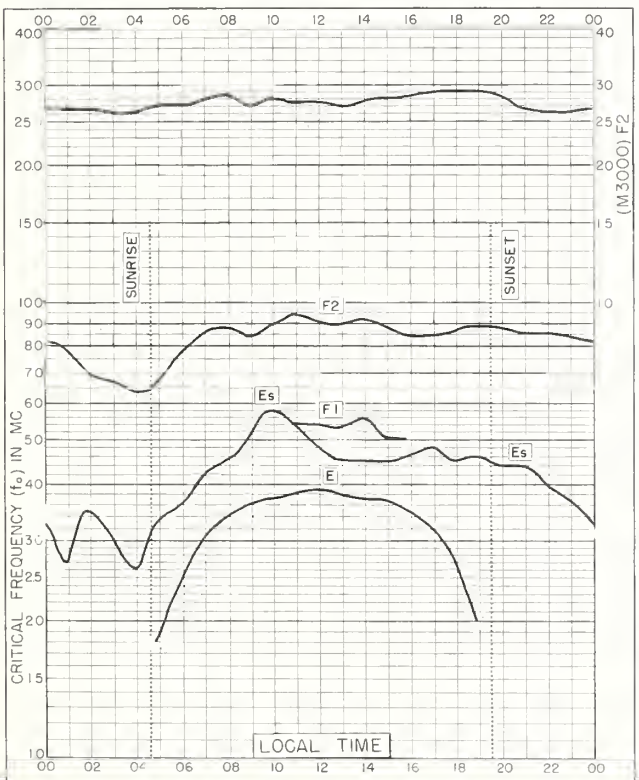


Fig. 35. ROME, ITALY
41.8°N, 12.5°E JUNE 1960

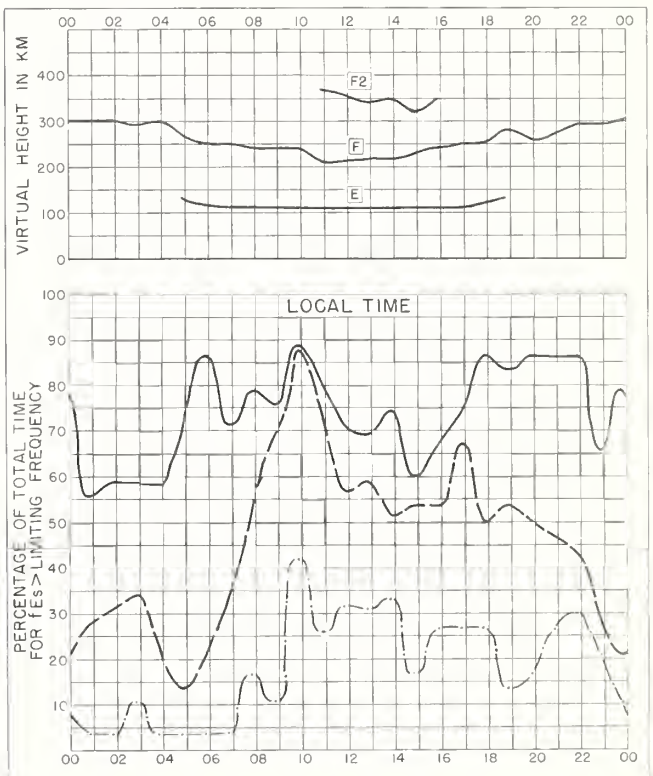


Fig. 36. ROME, ITALY JUNE 1960

NBS 490

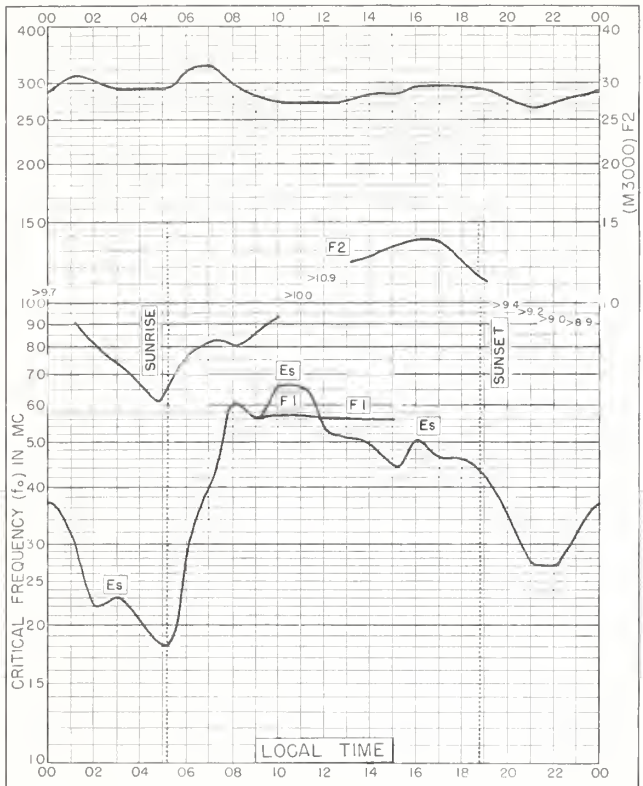


Fig. 37. FORMOSA, CHINA
25.0°N, 121.5°E JUNE 1960

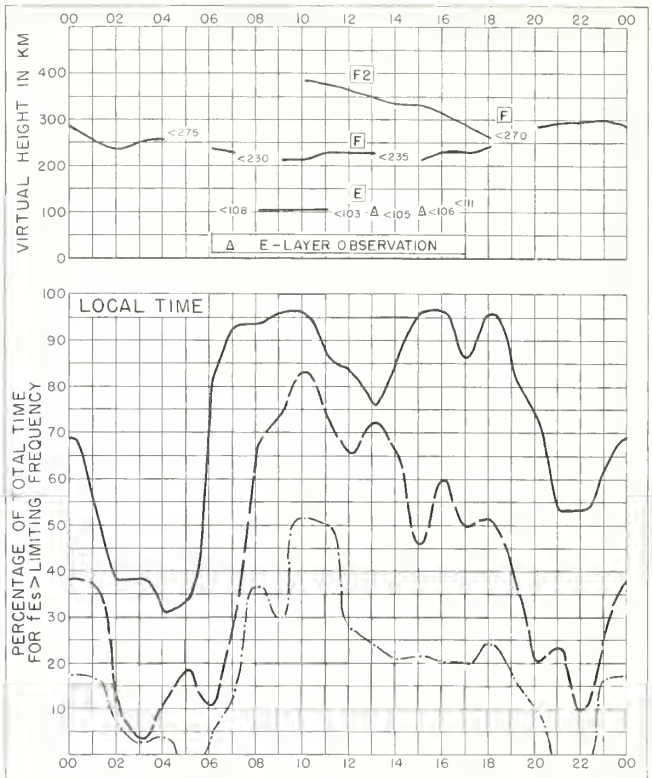


Fig. 38. FORMOSA, CHINA JUNE 1960

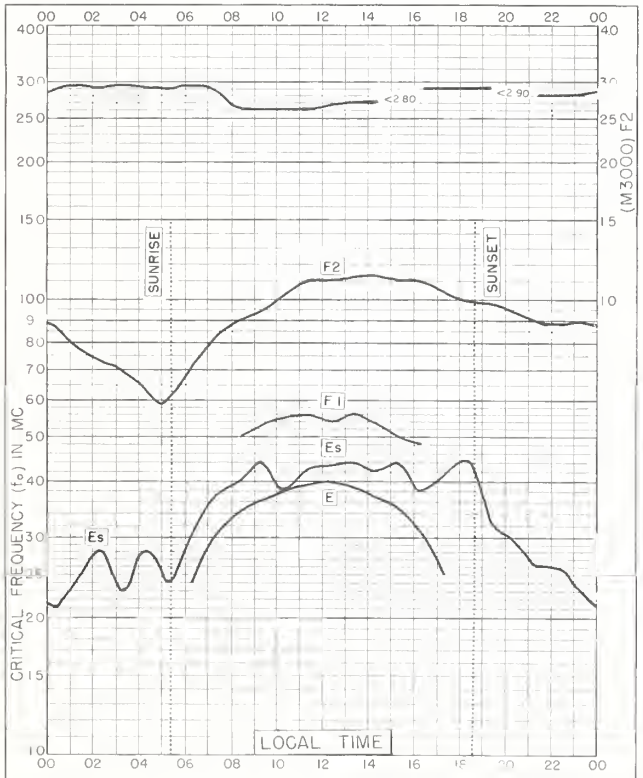


Fig. 39. EL CERILLO, MEXICO
19.3°N, 99.5° W JUNE 1960

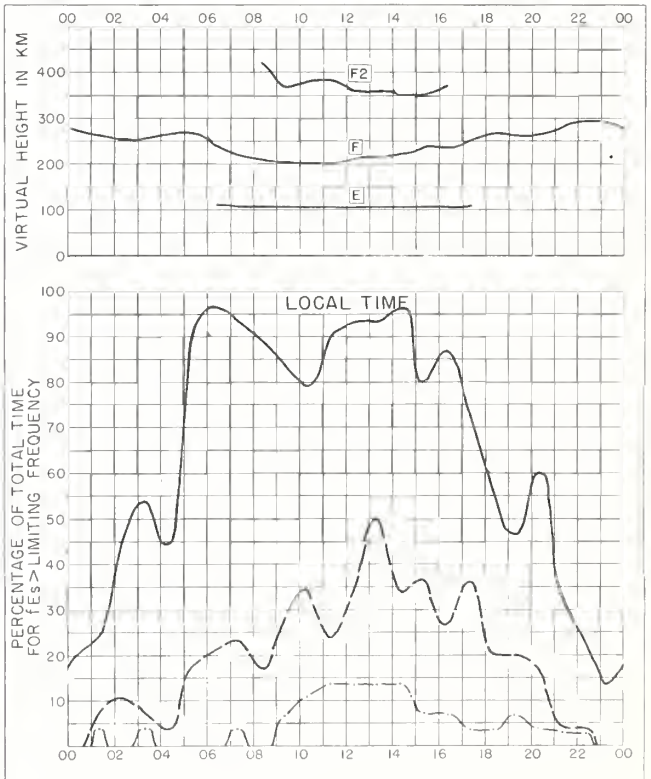


Fig. 40. EL CERILLO, MEXICO JUNE 1960

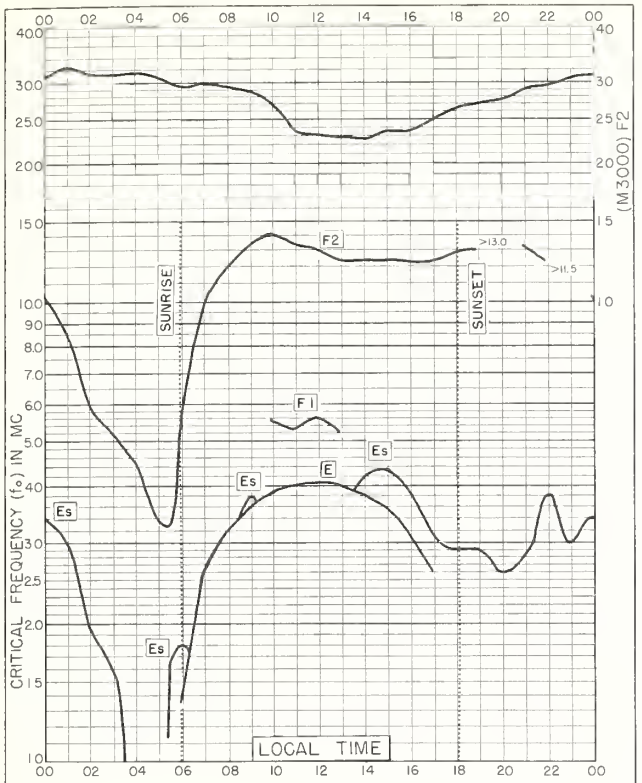


Fig. 41. SINGAPORE, BRITISH MALAYA
1.3°N, 103.8°E JUNE 1960

NBS 503

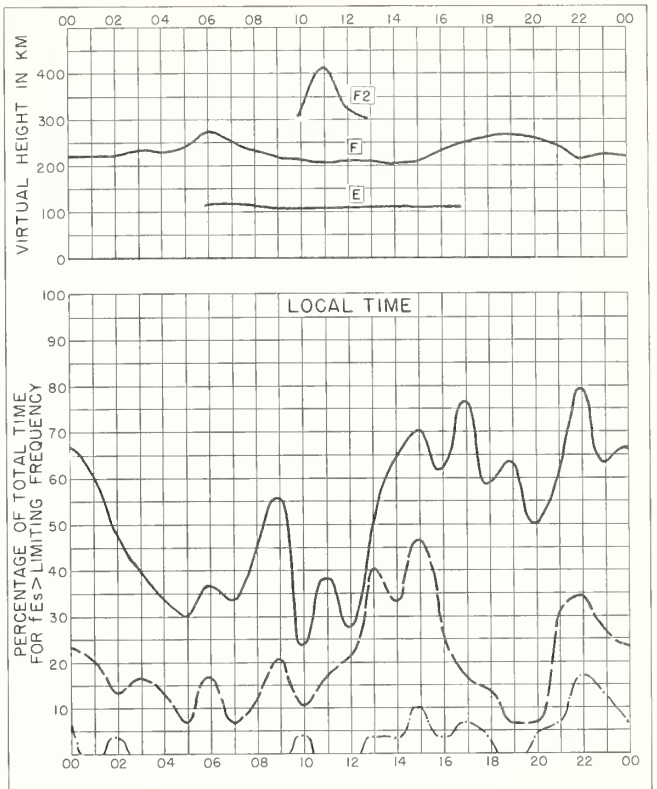


Fig. 42. SINGAPORE, BRITISH MALAYA JUNE 1960

NBS 490

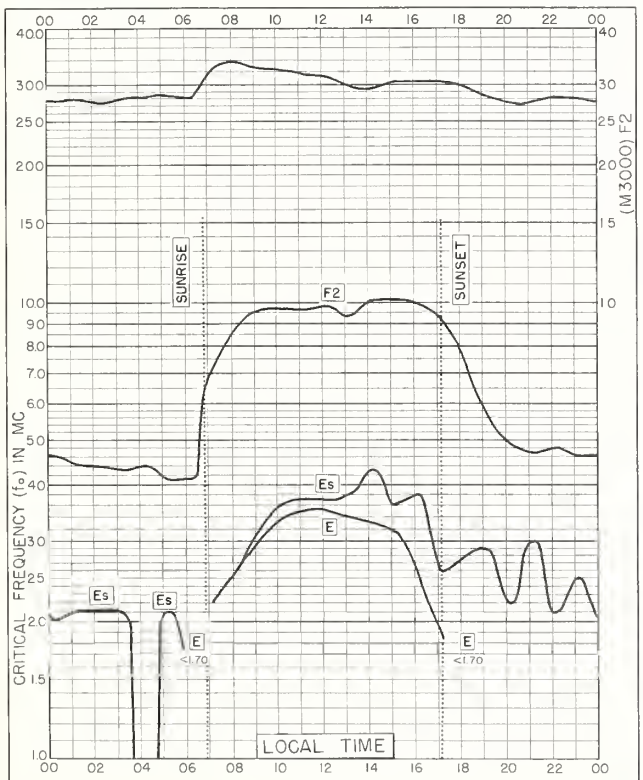


Fig. 43. BRISBANE, AUSTRALIA
27.5°S, 152.9°E JUNE 1960

NBS 503

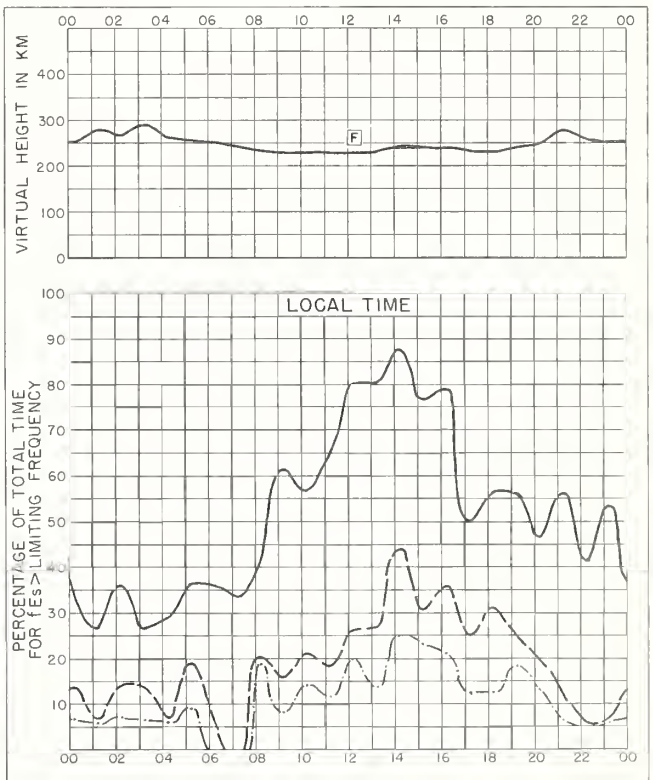


Fig. 44. BRISBANE, AUSTRALIA JUNE 1960

NBS 490

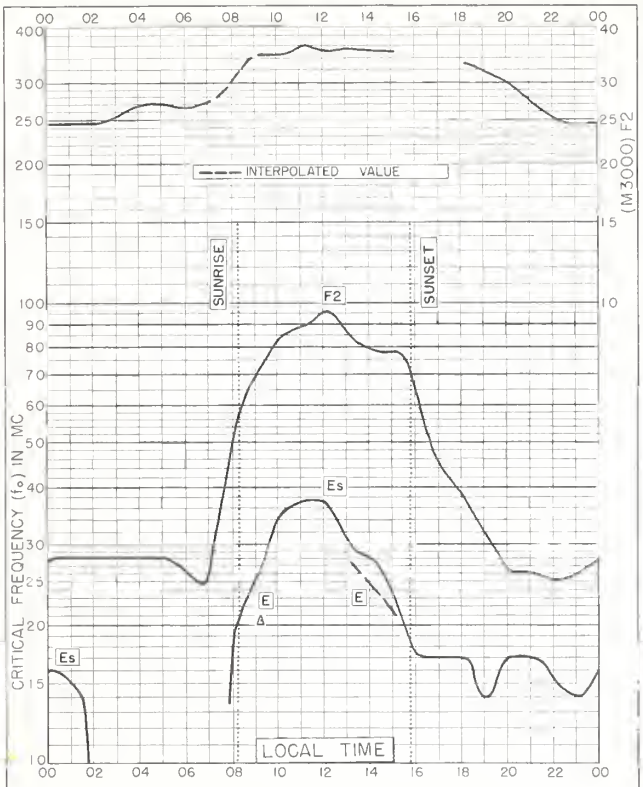


Fig. 45. FALKLAND IS.
51.7°S, 57.8° W JUNE 1960

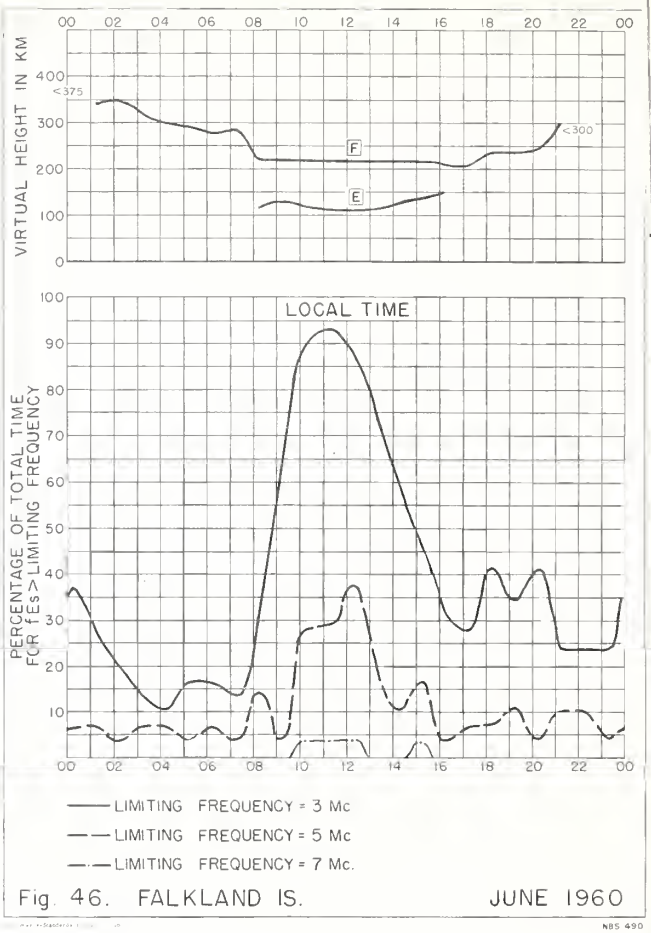


Fig. 46. FALKLAND IS. JUNE 1960

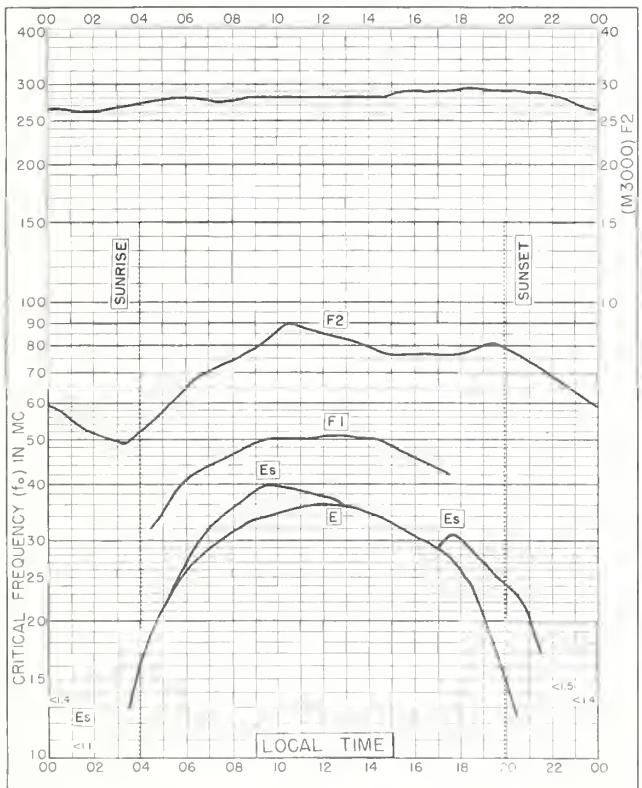


Fig. 47. MOSCOW, U.S.S.R.
55.5°N, 37.3°E MAY 1960

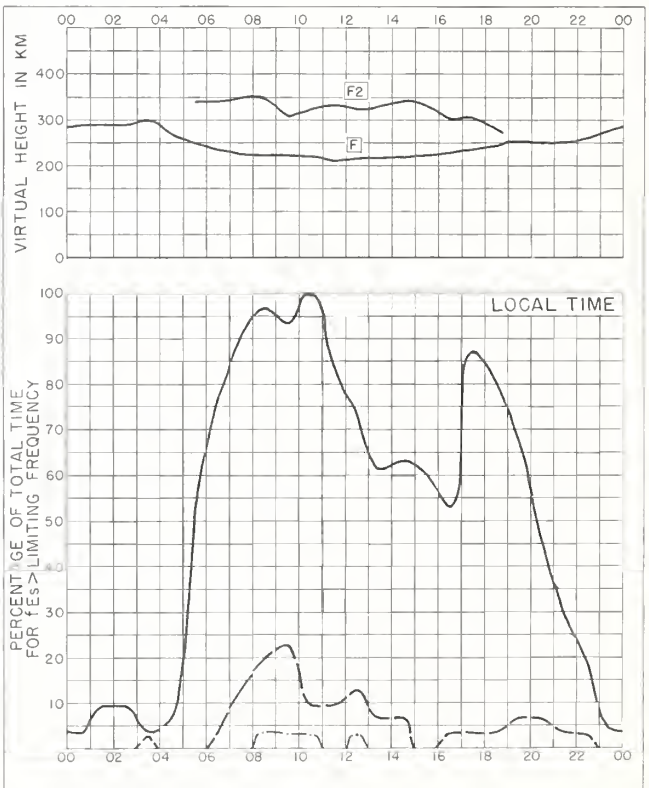


Fig. 48. MOSCOW, U.S.S.R. MAY 1960

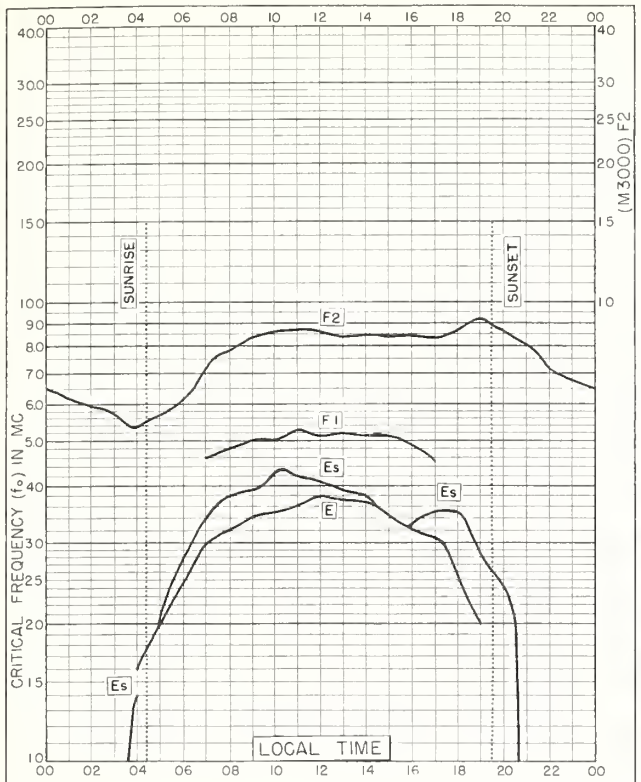


Fig. 49. PRUHONICE, CZECHOSLOVAKIA
50.0°N, 14.6°E MAY 1960

NBS 503

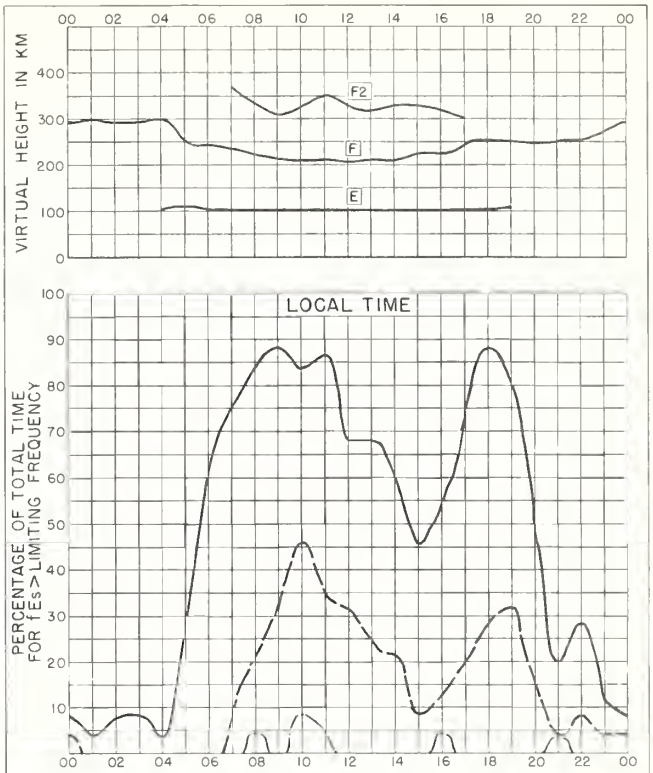


Fig. 50. PRUHONICE, CZECHOSLOVAKIA MAY 1960

NBS 490

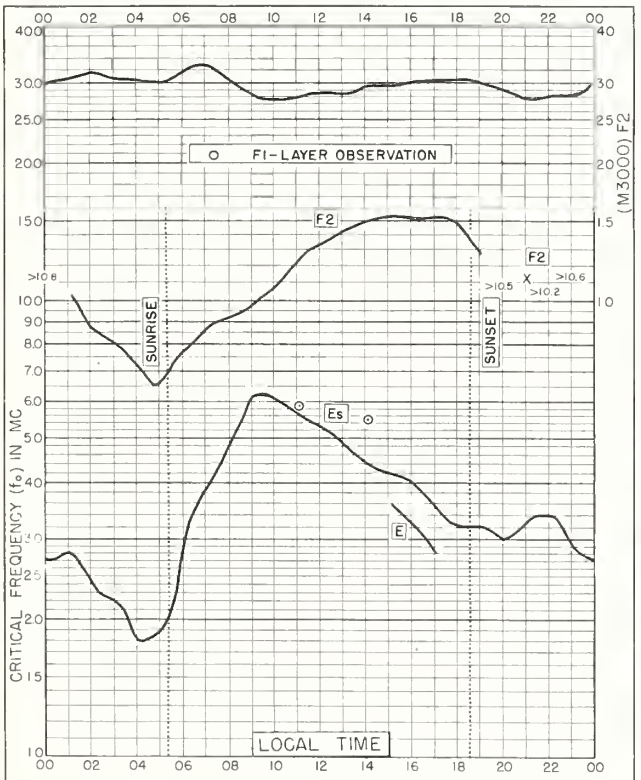


Fig. 51. FORMOSA, CHINA
25.0°N, 121.5°E MAY 1960

NBS 503

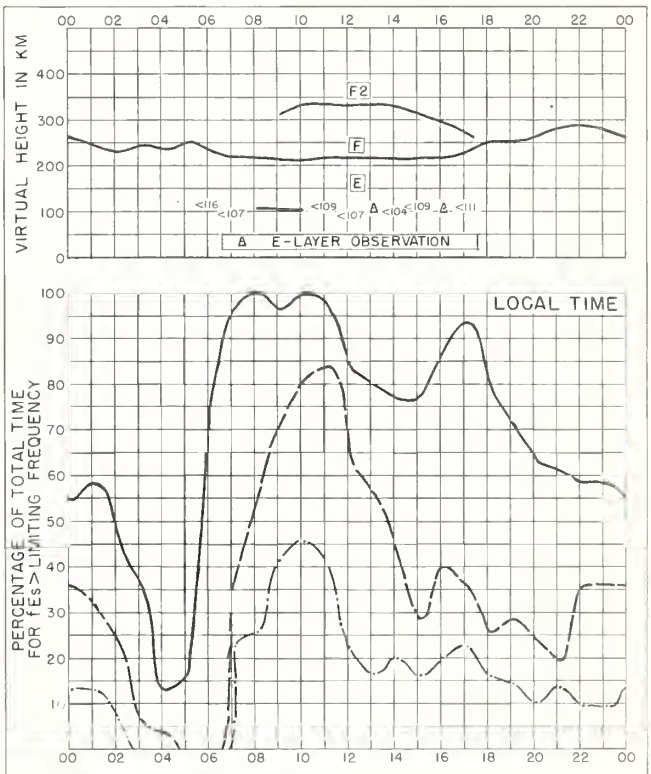


Fig. 52. FORMOSA, CHINA MAY 1960

NBS 490

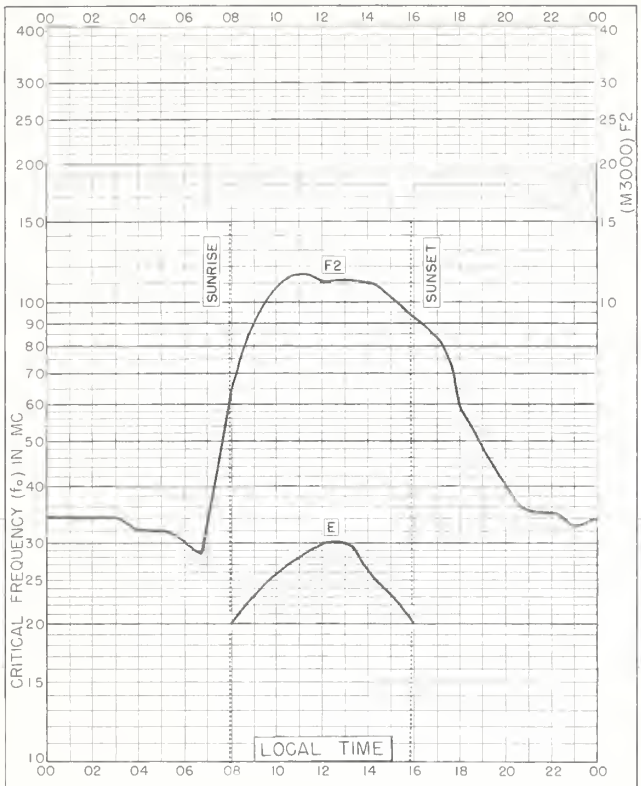


Fig. 53. PRUHONICE, CZECHOSLOVAKIA
50.0°N, 14.6°E DECEMBER 1959

NBS 503

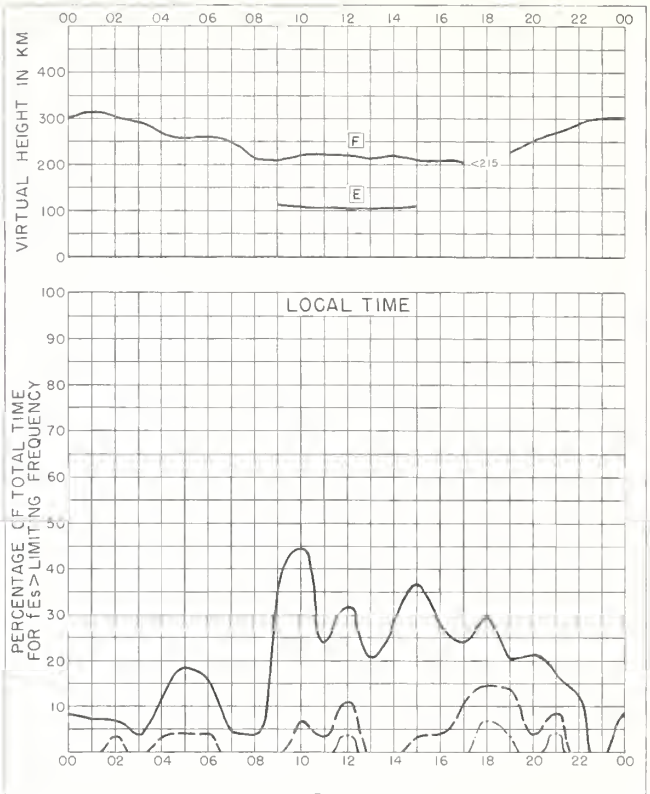


Fig. 54. PRUHONICE, CZECHOSLOVAKIA DECEMBER 1959

NBS 490

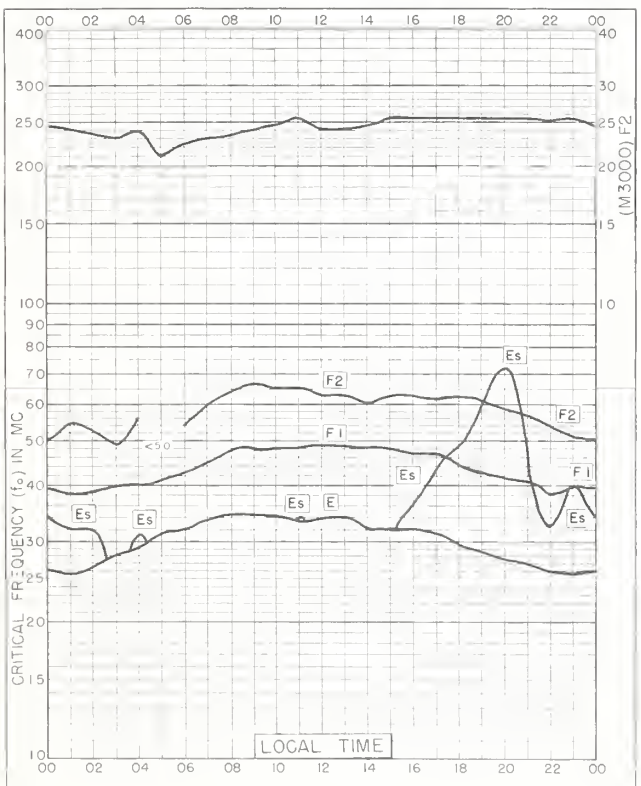


Fig. 55. SVALBARD, NORWAY
78.2°N, 15.7°E JUNE 1959

NBS 503

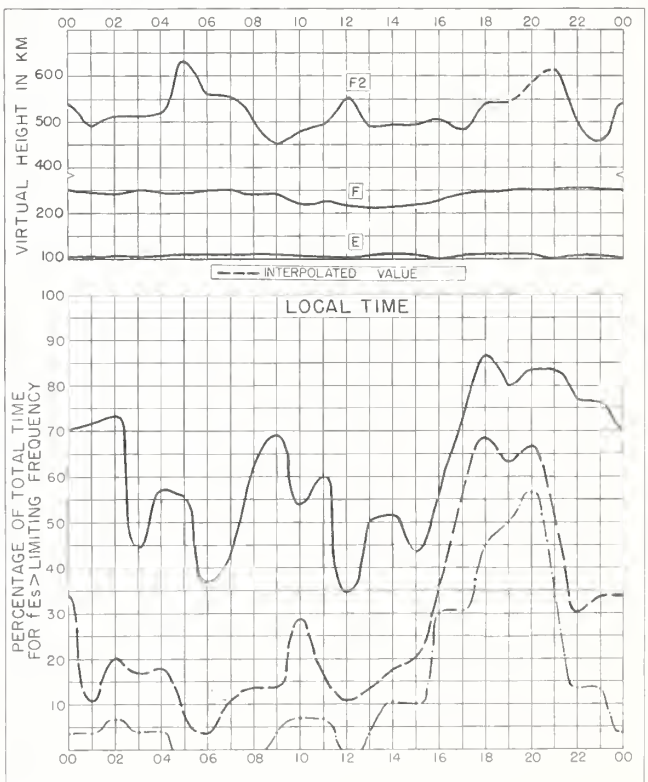


Fig. 56. SVALBARD, NORWAY JUNE 1959

NBS 490

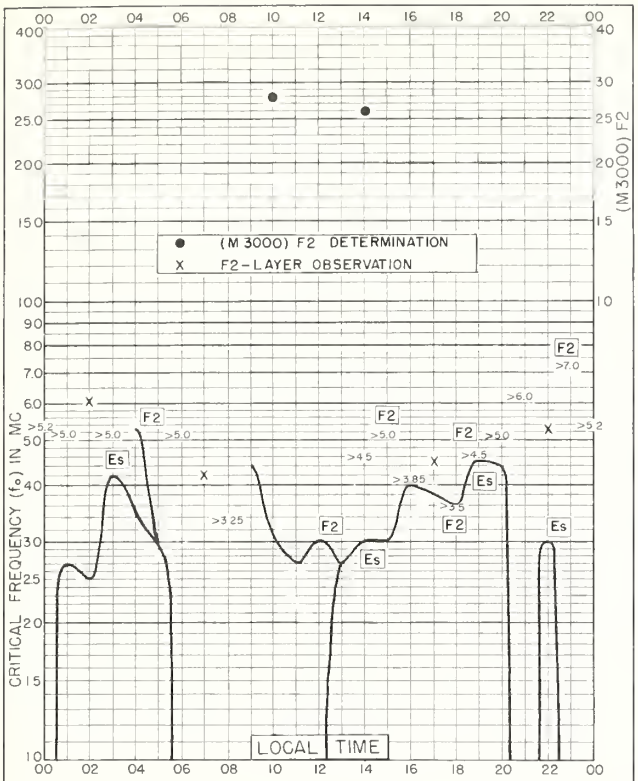


Fig. 57. BYRD STATION
80.0°S, 120.0°W JUNE 1959

NBS 503

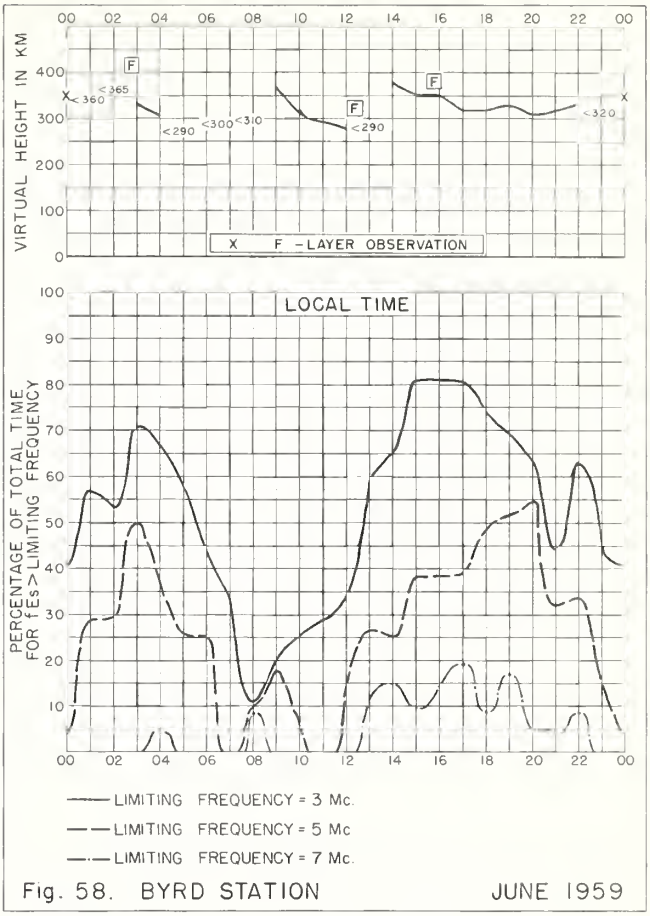


Fig. 58. BYRD STATION JUNE 1959

NBS 490

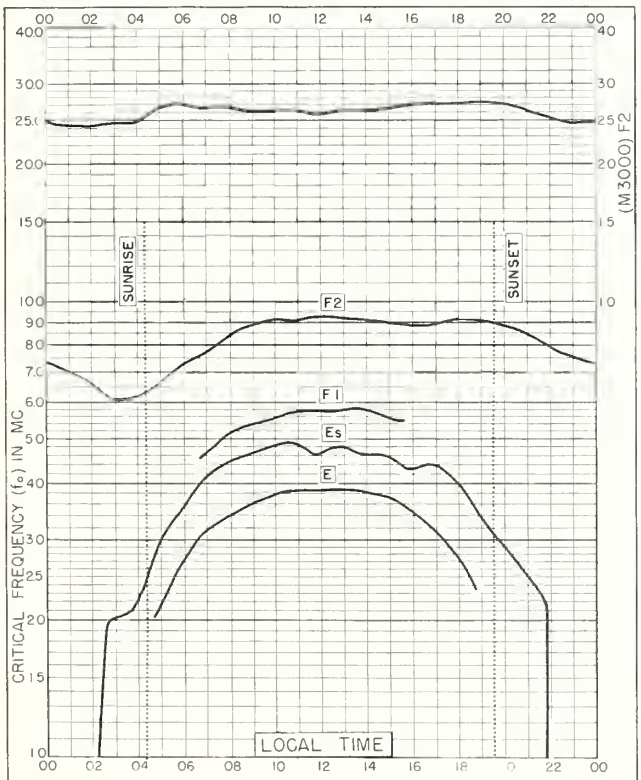


Fig. 59. LINDAU/HARZ, GERMANY
51.6°N, 10.1°E MAY 1959

NBS 503

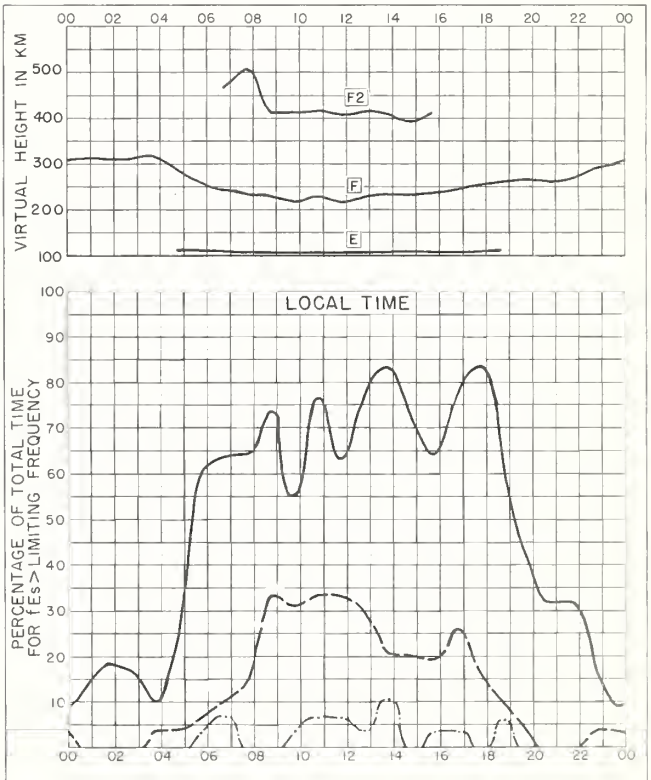


Fig. 60. LINDAU/HARZ, GERMANY MAY 1959

NBS 490

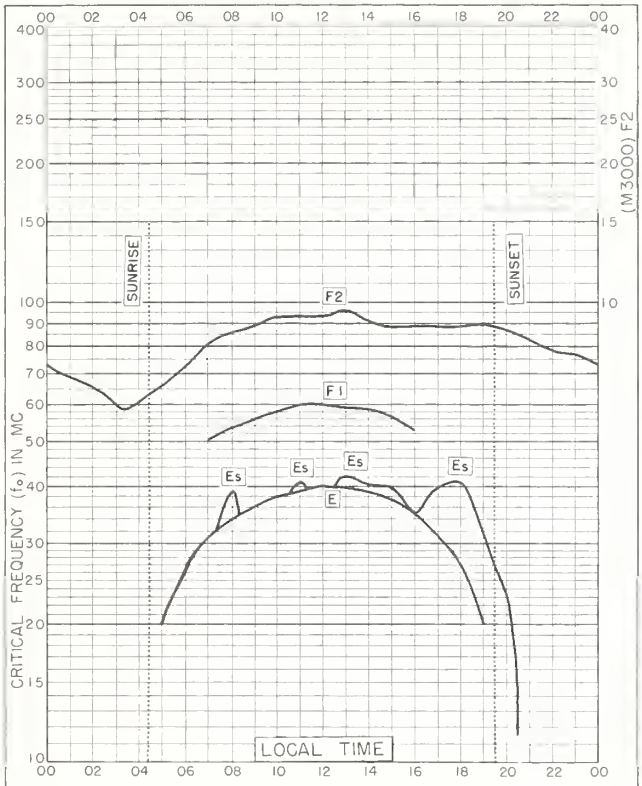


Fig. 61. PRUHONICE, CZECHOSLOVAKIA
50.0°N, 14.6°E MAY 1959

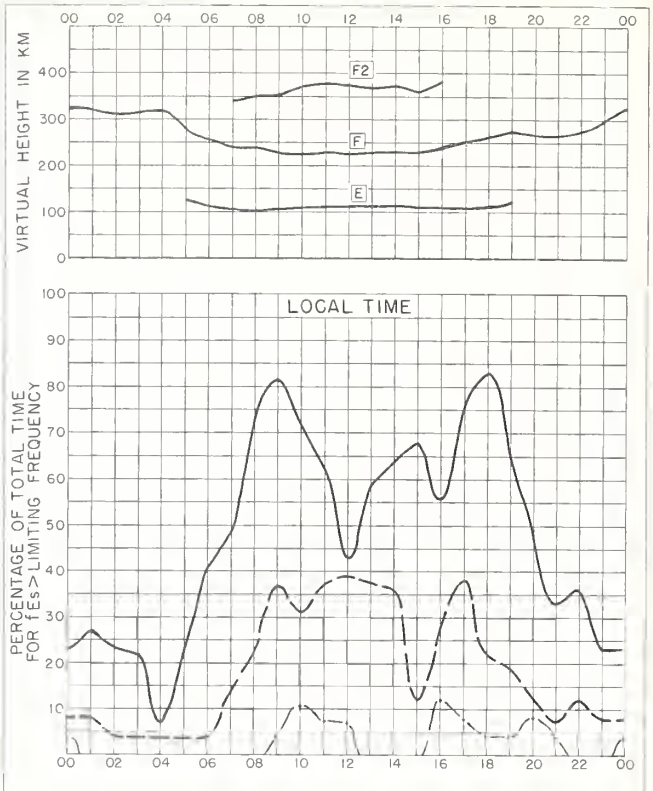


Fig. 62. PRUHONICE, CZECHOSLOVAKIA MAY 1959

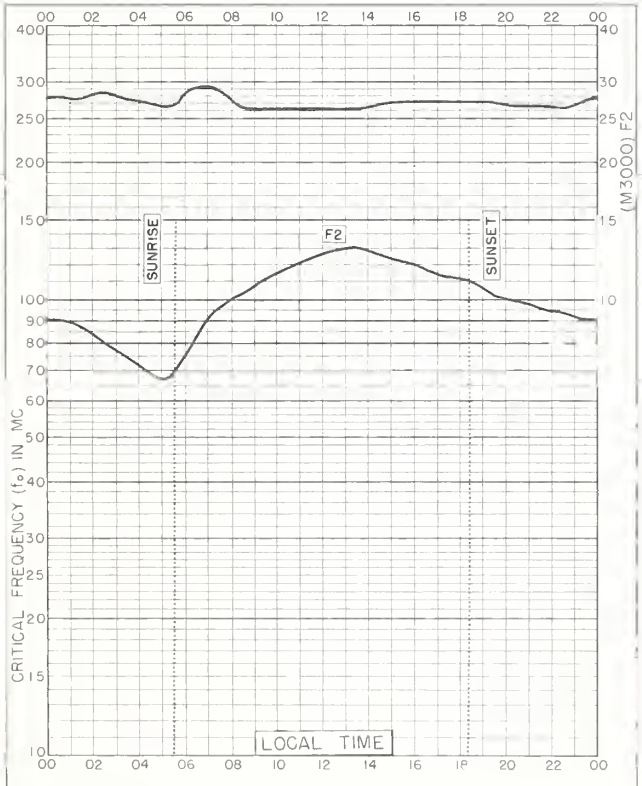


Fig. 63. EL CERILLO, MEXICO
19.3°N, 99.5°W MAY 1959

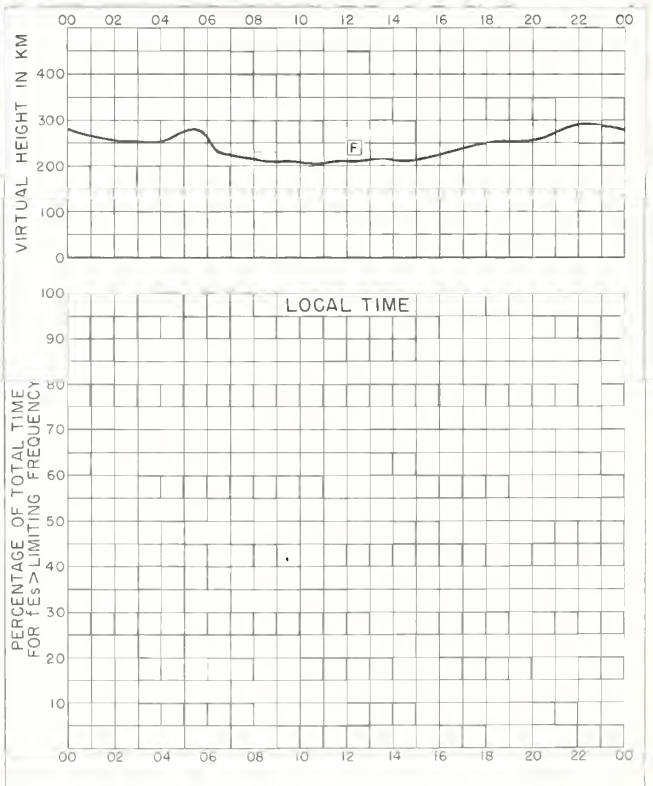


Fig. 64. EL CERILLO, MEXICO MAY 1959

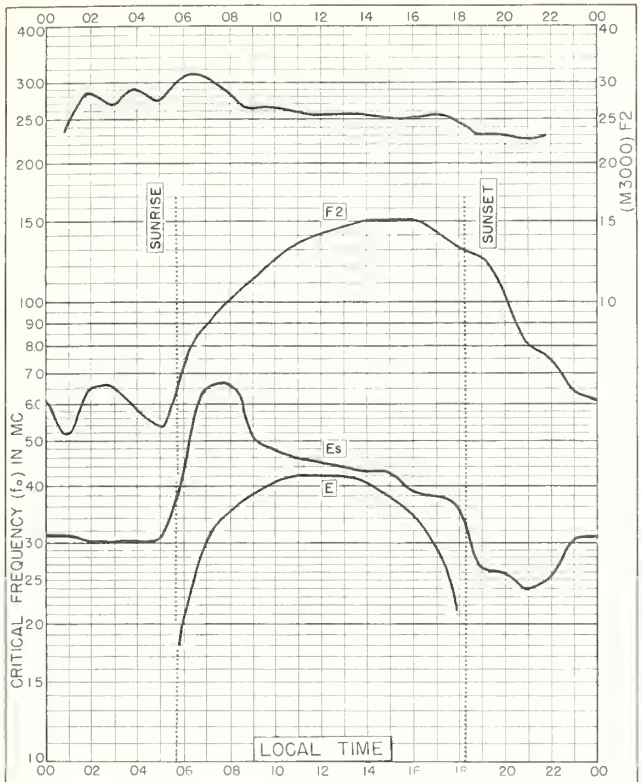


Fig. 65. DAKAR, FRENCH W. AFRICA
14.8°N, 17.4°W MAY 1959

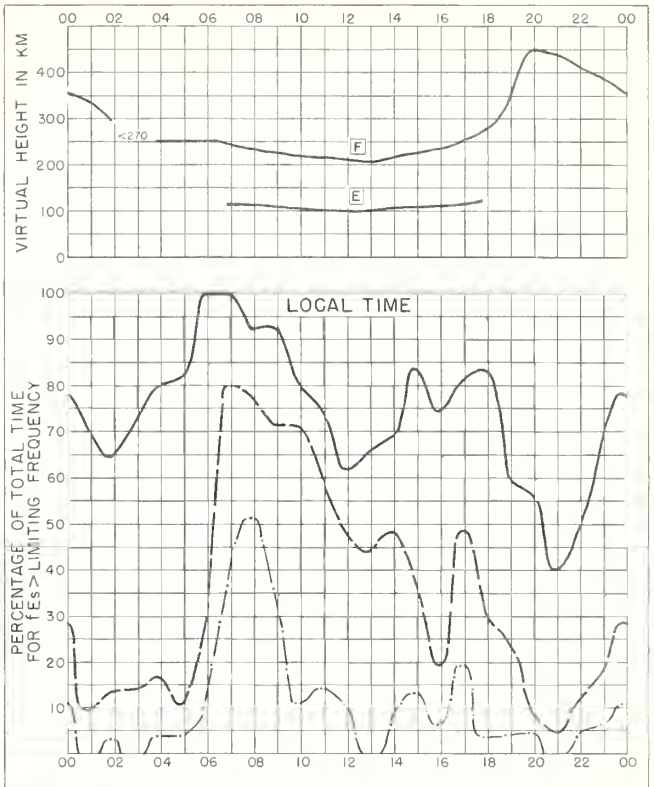


Fig. 66. DAKAR, FRENCH W. AFRICA MAY 1959

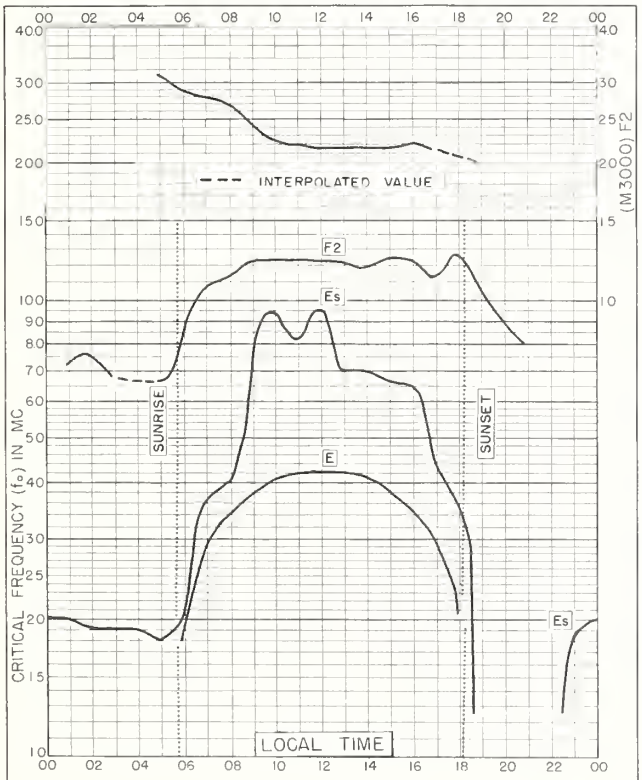


Fig. 67. DJIBOUTI, FRENCH SOMALILAND
11.6°N, 43.2°E MAY 1959

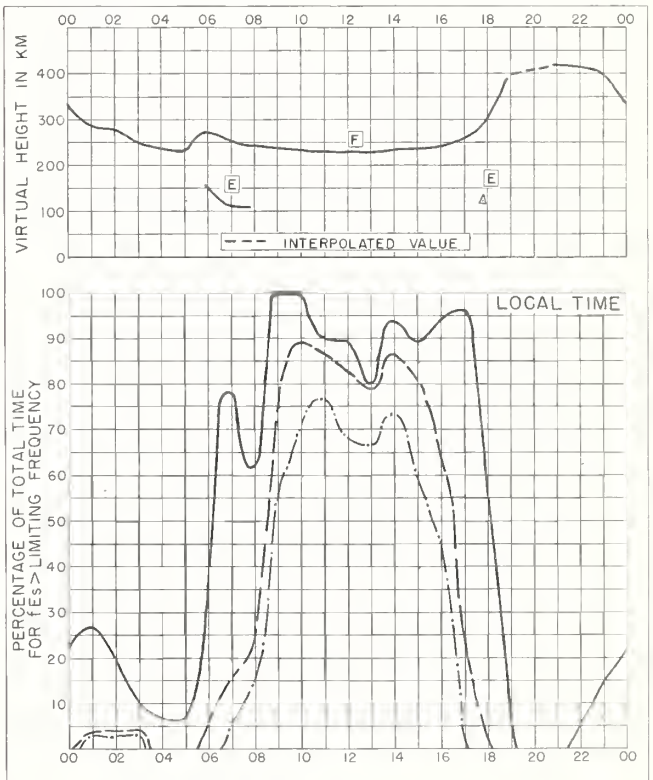


Fig. 68. DJIBOUTI, FRENCH SOMALILAND MAY 1959

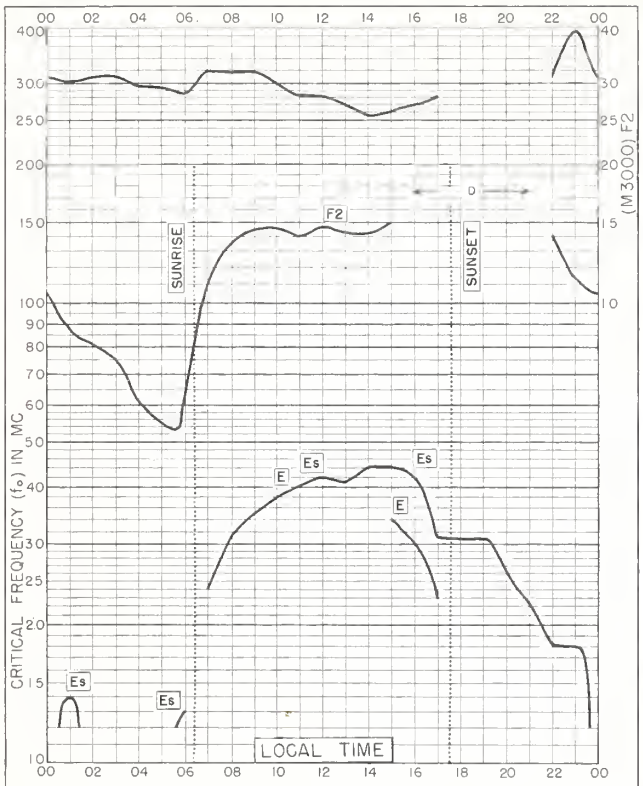


Fig. 69. TAHITI, SOCIETY IS.
17.7°S, 149.3° W MAY 1959

NBS 503

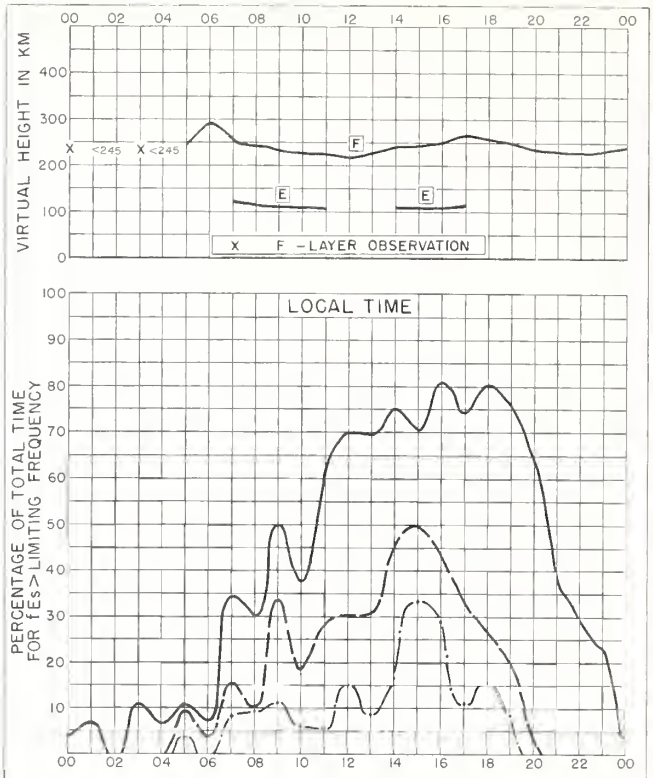


Fig. 70. TAHITI, SOCIETY IS. MAY 1959

NBS 490

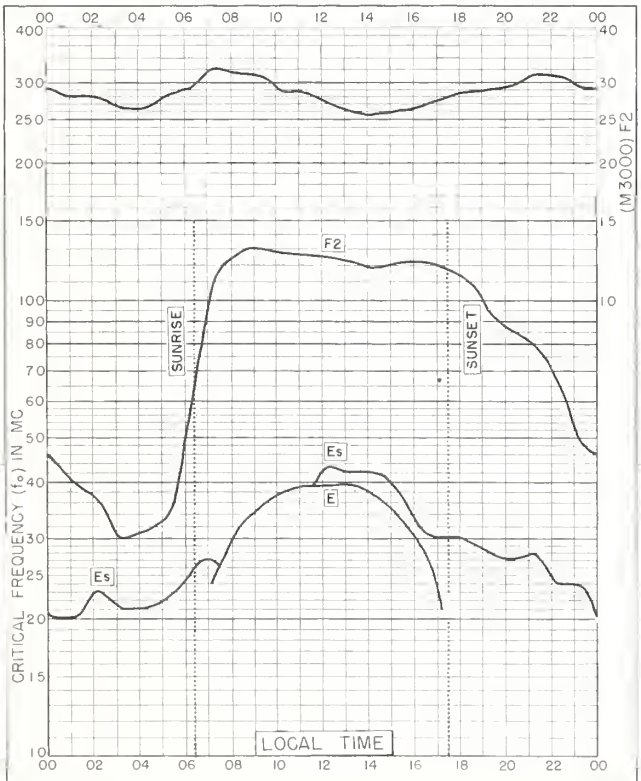


Fig. 71. TANANARIVE, MADAGASCAR
18.8°S, 47.5°E MAY 1959

NBS 503

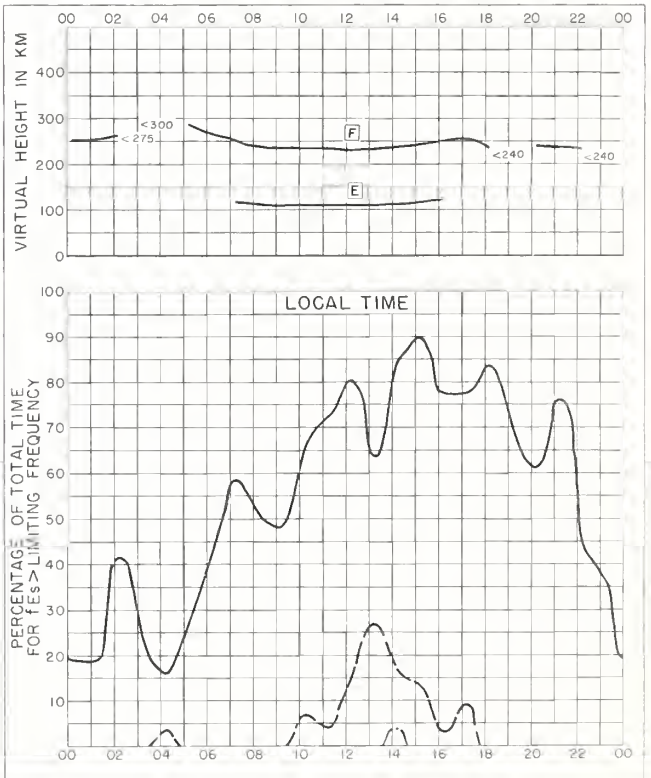


Fig. 72. TANANARIVE, MADAGASCAR MAY 1959

NBS 490

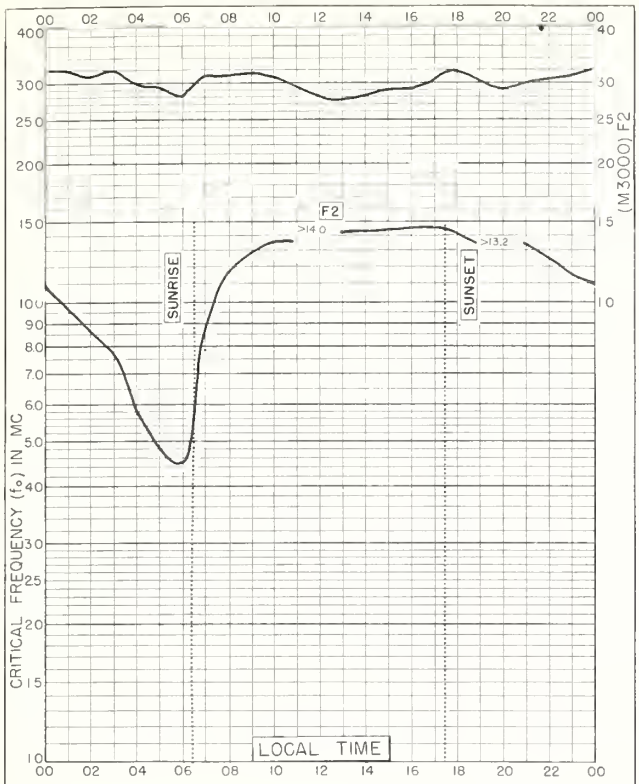


Fig. 73. SAO PAULO, BRAZIL
23.5°S, 46.5° W MAY 1959

NBS 503

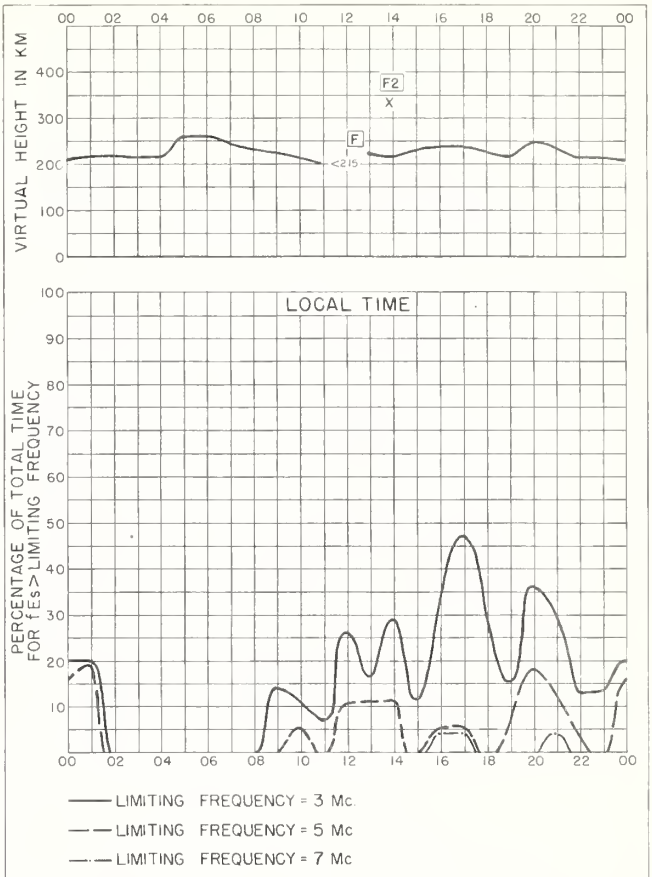


Fig. 74. SAO PAULO, BRAZIL MAY 1959

NBS 490

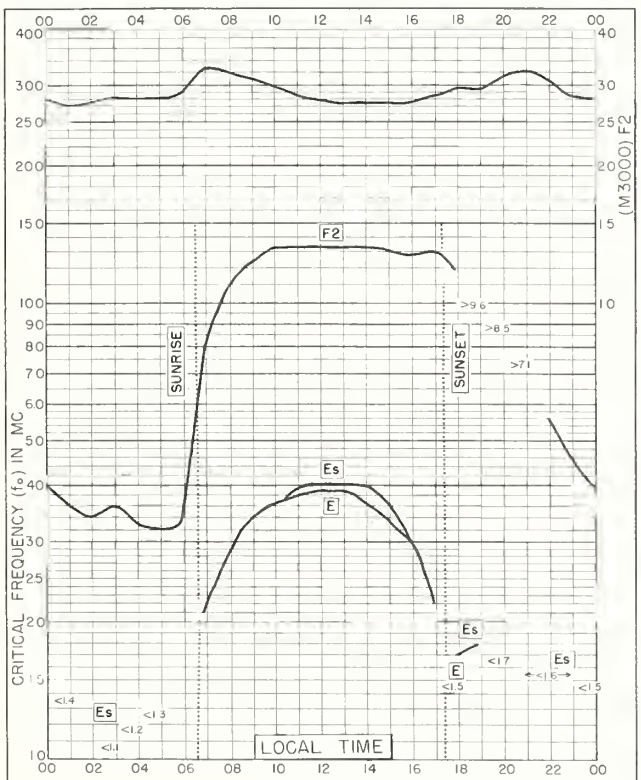


Fig. 75. JOHANNESBURG, UNION OF S. AFRICA
26.1°S, 28.1°E MAY 1959

NBS 503

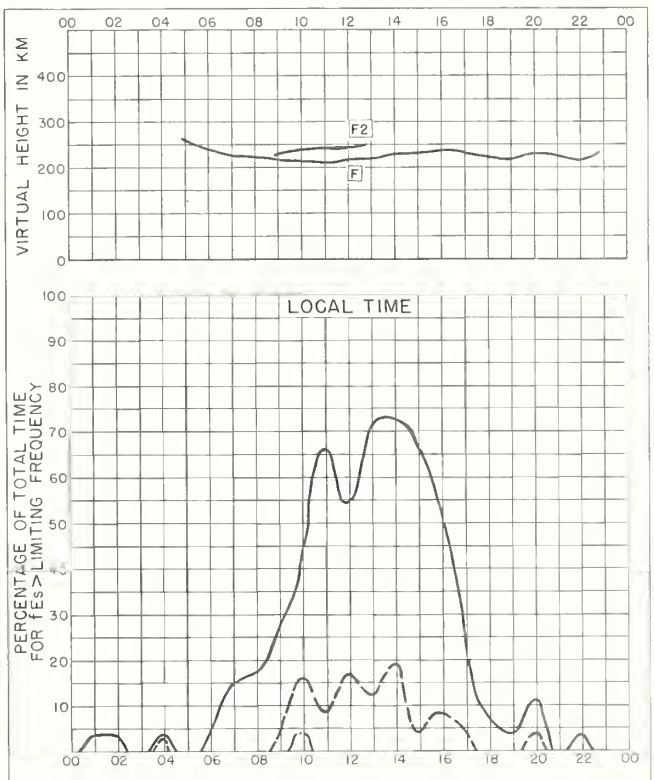


Fig. 76. JOHANNESBURG, UNION OF S. AFRICA MAY 1959

NBS 490

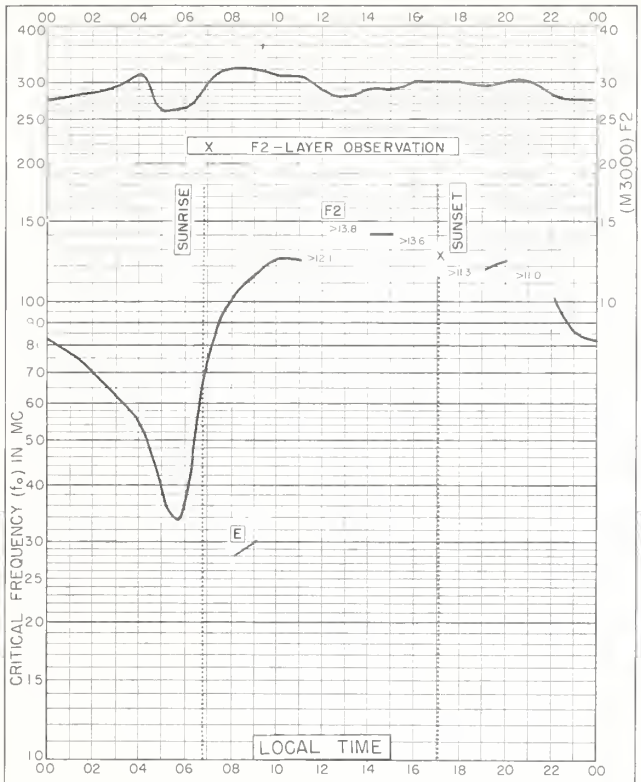


Fig. 77. BUENOS AIRES, ARGENTINA
34.5°S, 58.5°W MAY 1959

NBS 503

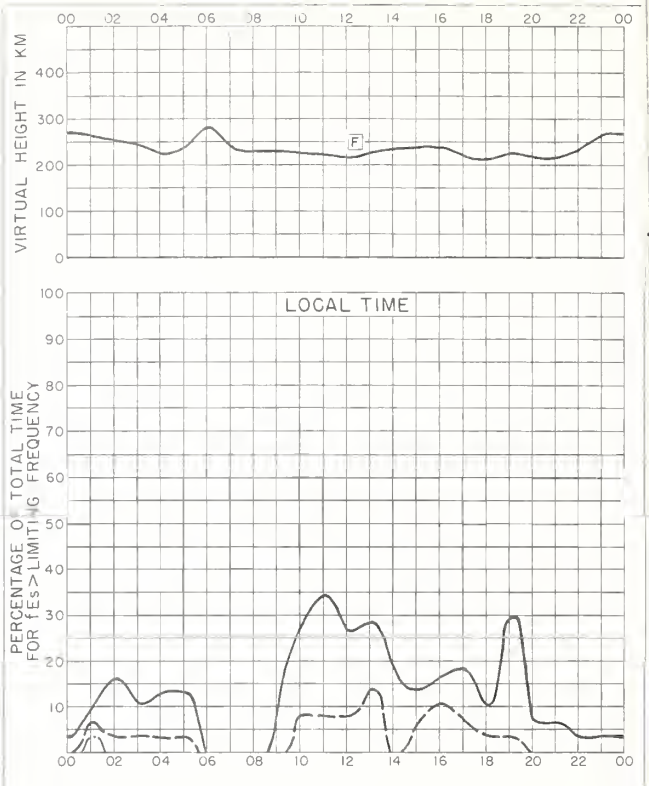


Fig. 78. BUENOS AIRES, ARGENTINA MAY 1959

NBS 490

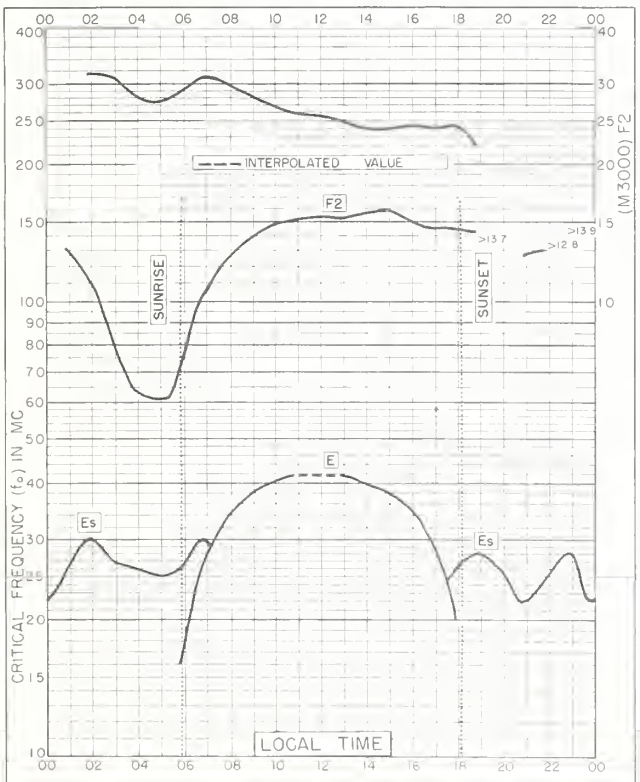


Fig. 79. DAKAR, FRENCH W. AFRICA
14.8°N, 17.4°W APRIL 1959

NBS 503

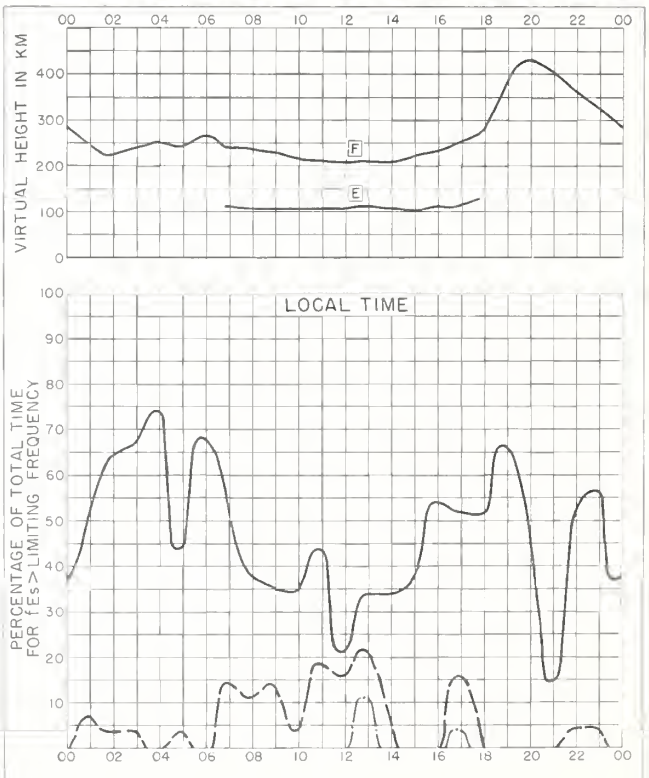


Fig. 80. DAKAR, FRENCH W. AFRICA APRIL 1959

NBS 490

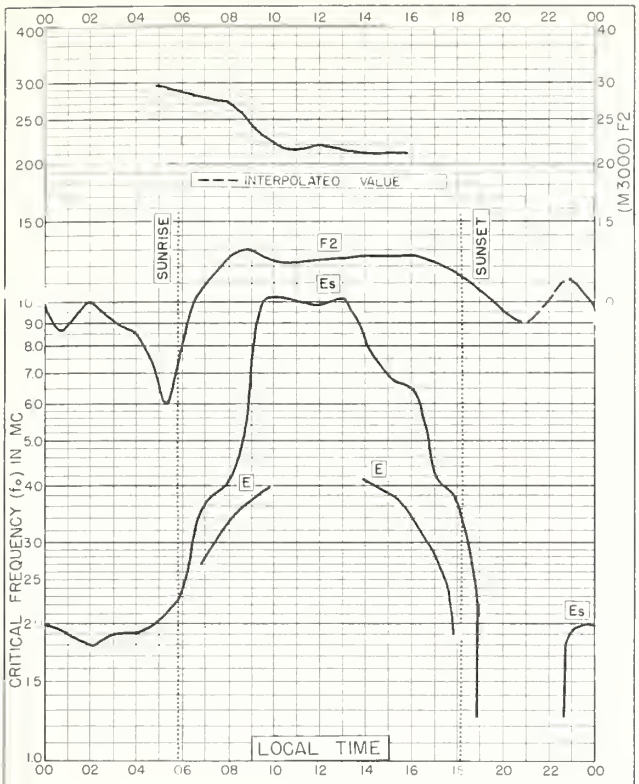


Fig. 81. DJIBOUTI, FRENCH SOMALILAND
11.6°N, 43.2°E APRIL 1959

NBS 503

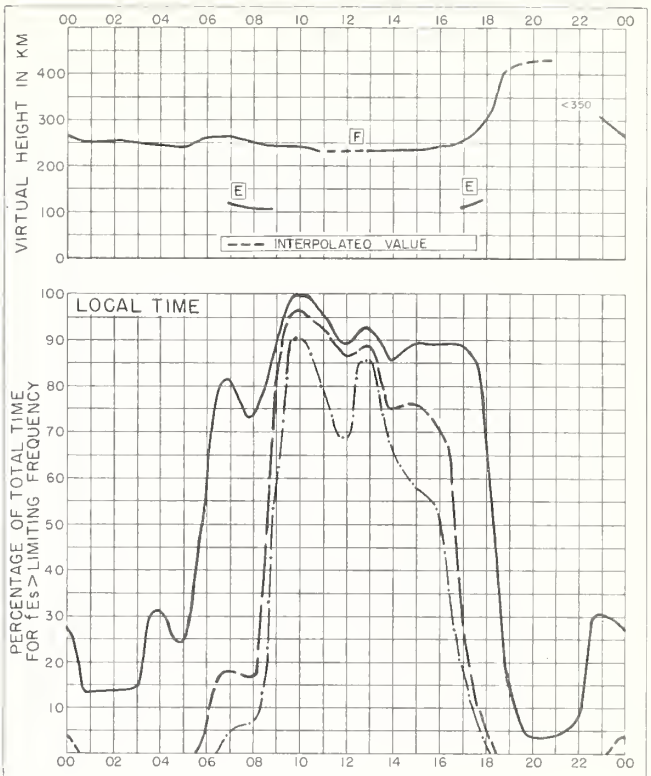


Fig. 82. DJIBOUTI, FRENCH SOMALILAND APRIL 1959

NBS 490

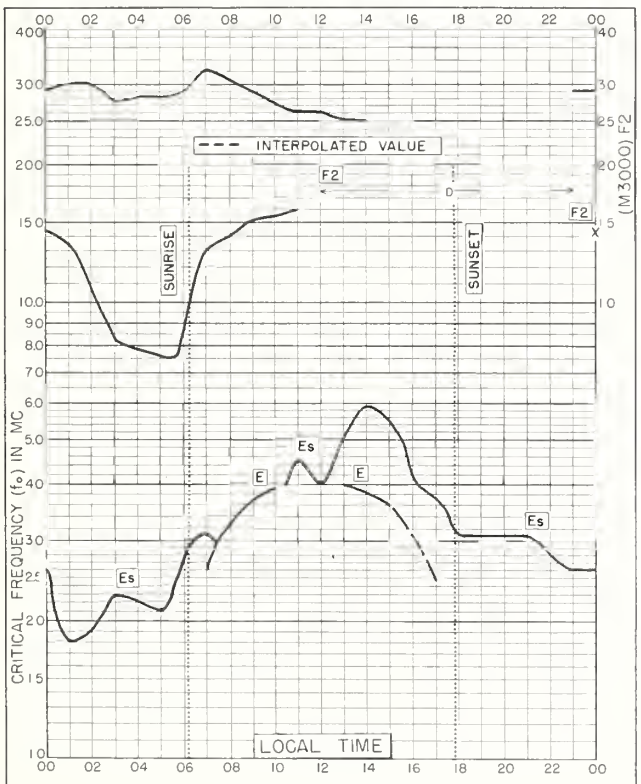


Fig. 83. TAHITI, SOCIETY IS.
17.7°S, 149.3°W APRIL 1959

NBS 503

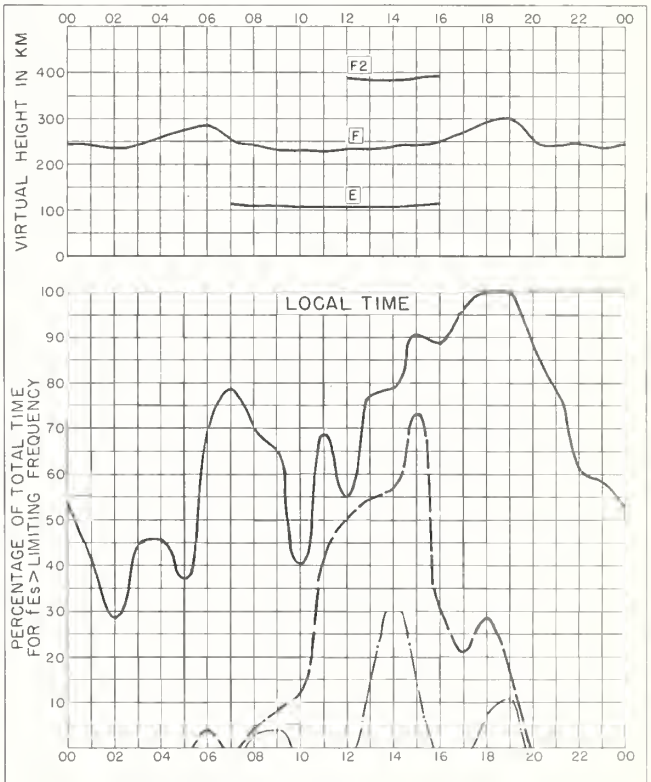


Fig. 84. TAHITI, SOCIETY IS. APRIL 1959

NBS 490

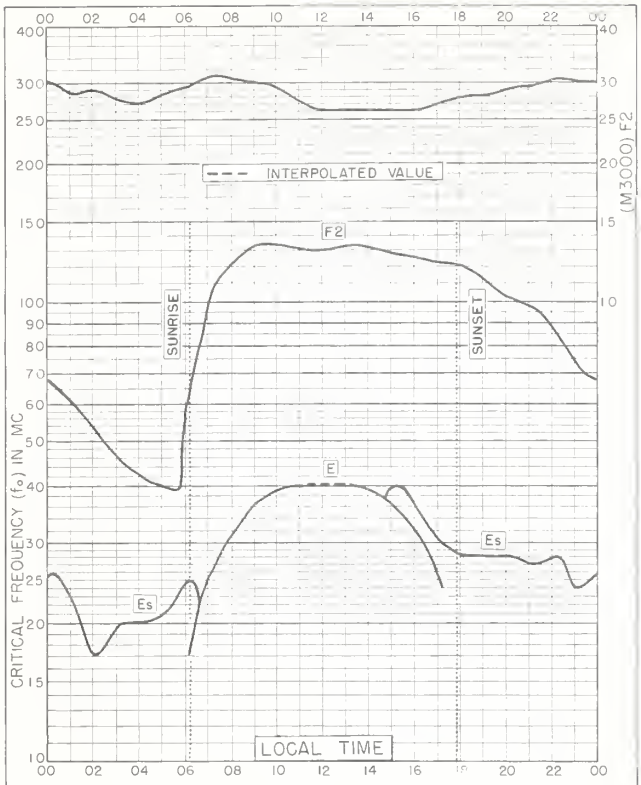


Fig. 85. TANANARIVE, MADAGASCAR
18.8°S, 47.5°E APRIL 1959

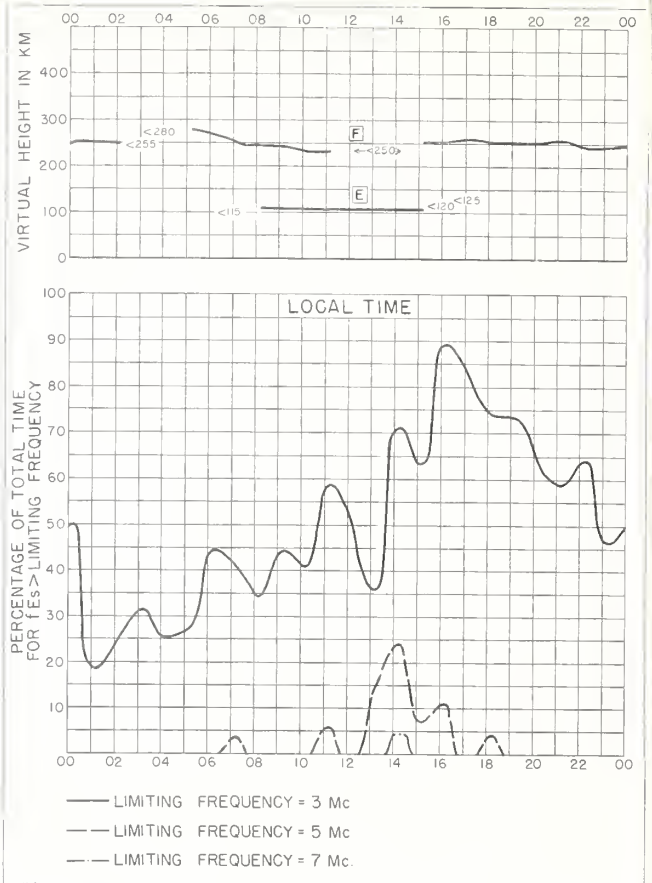


Fig. 86. TANANARIVE, MADAGASCAR APRIL 1959

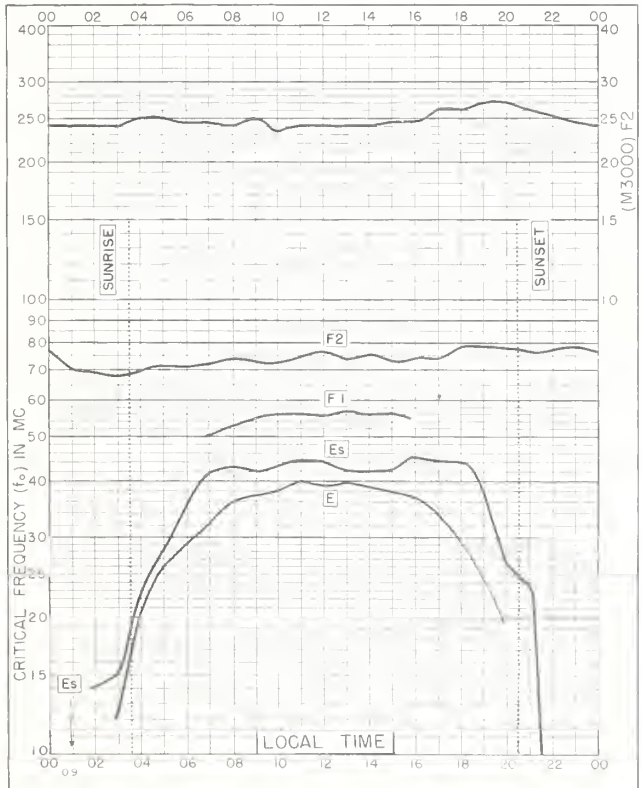


Fig. 87. JULIUSRUH/RÜGEN, GERMANY
54.6°N, 13.4°E JUNE 1958

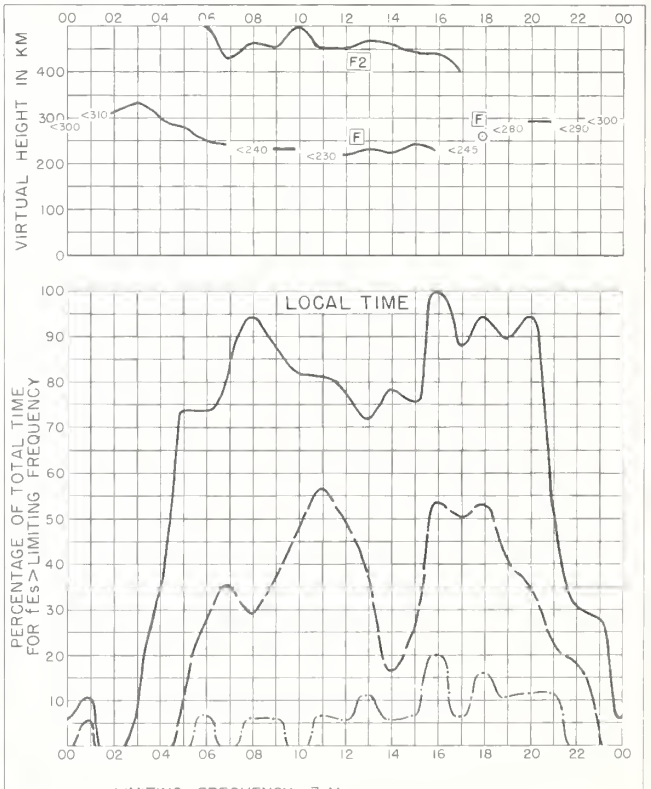


Fig. 88. JULIUSRUH/RÜGEN, GERMANY JUNE 1958

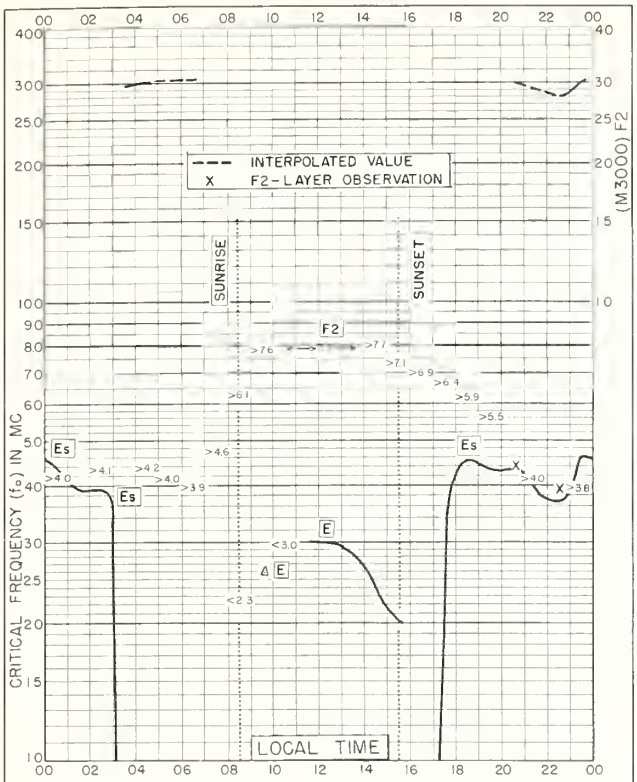


Fig. 89. MACQUARIE I.
54.5°S, 159.0°E JUNE 1958

NBS 503

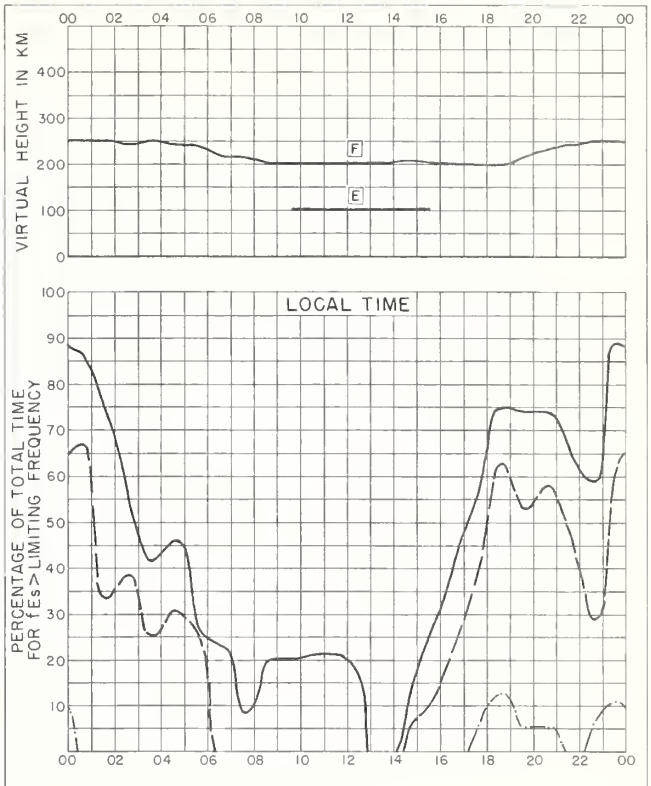


Fig. 90. MACQUARIE I. JUNE 1958

NBS 490

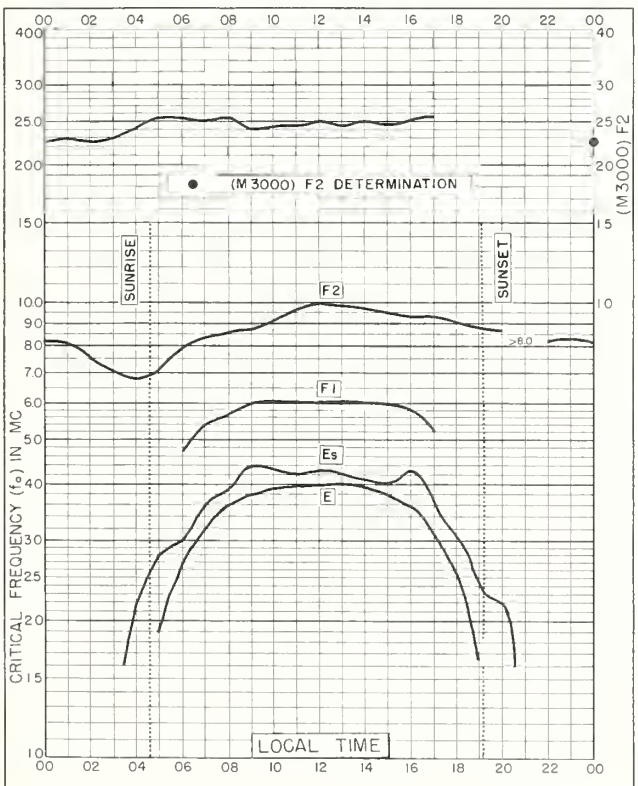


Fig. 91. POITIERS, FRANCE
46.6°N, 0.3°E MAY 1958

NBS 503

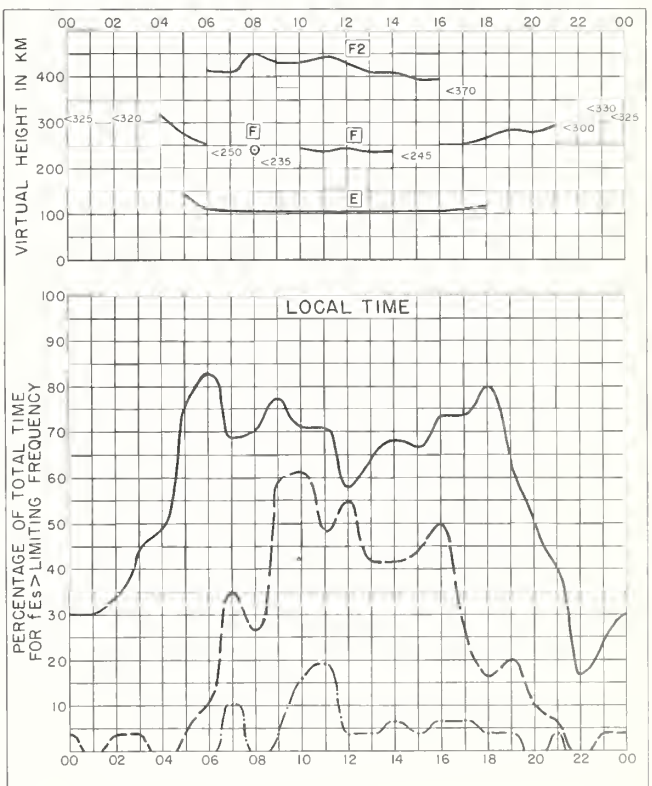


Fig. 92. POITIERS, FRANCE MAY 1958

NBS 490

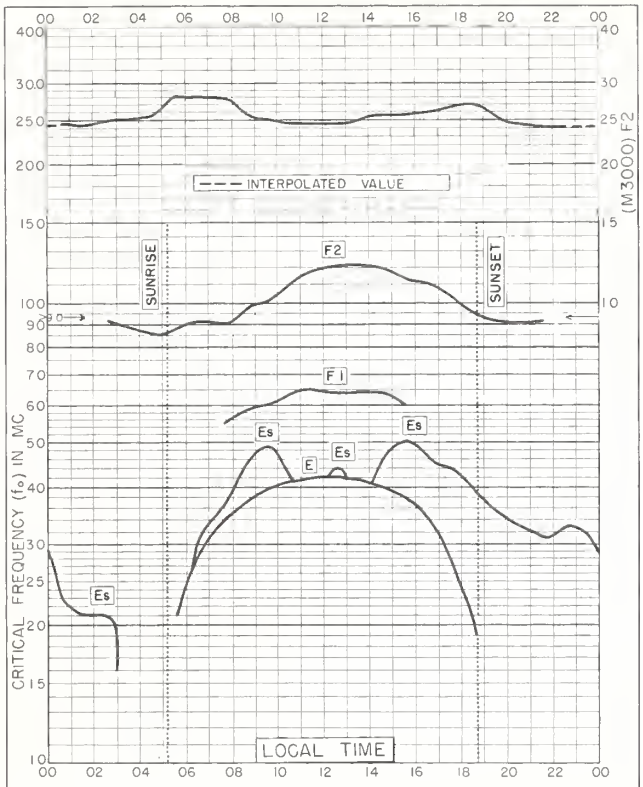


Fig. 93. RABAT, MOROCCO
30.9°N, 6.8°W MAY 1958

NBS 503

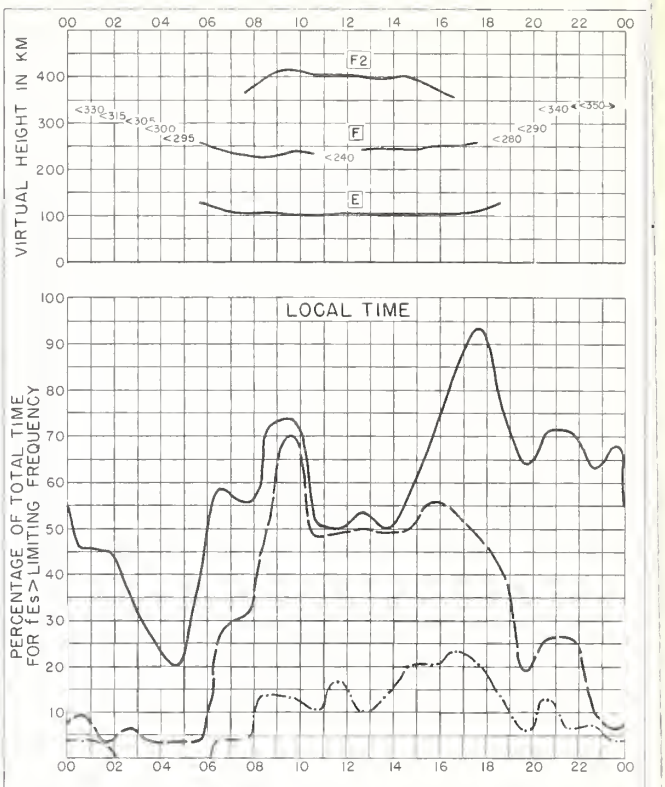


Fig. 94. RABAT, MOROCCO MAY 1958

NBS 490

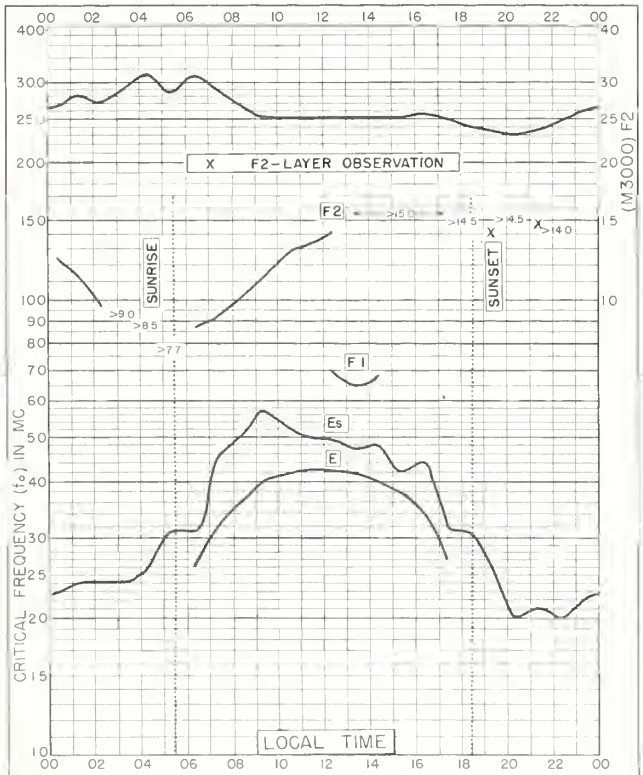


Fig. 95. TAMANRASSET, FRENCH W. AFRICA
22.8°N, 5.5°E MAY 1958

NBS 503

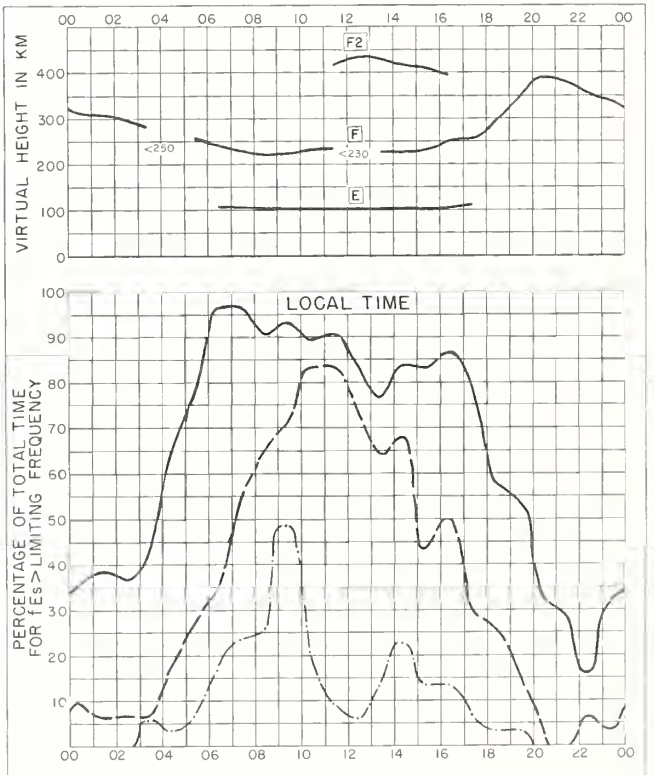


Fig. 96. TAMANRASSET, FRENCH W. AFRICA MAY 1958

NBS 490

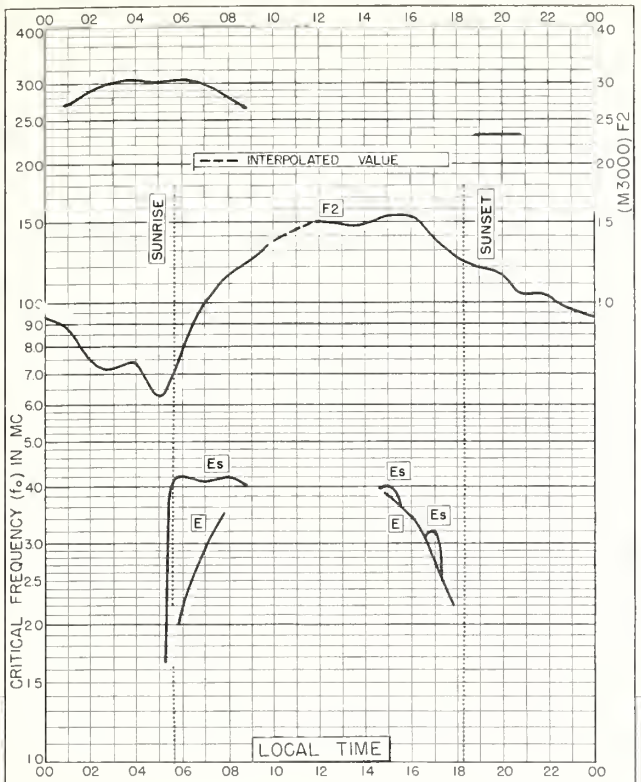


Fig. 97. DAKAR, FRENCH W. AFRICA
14.7°N, 17.4° W. MAY 1958

NBS 503

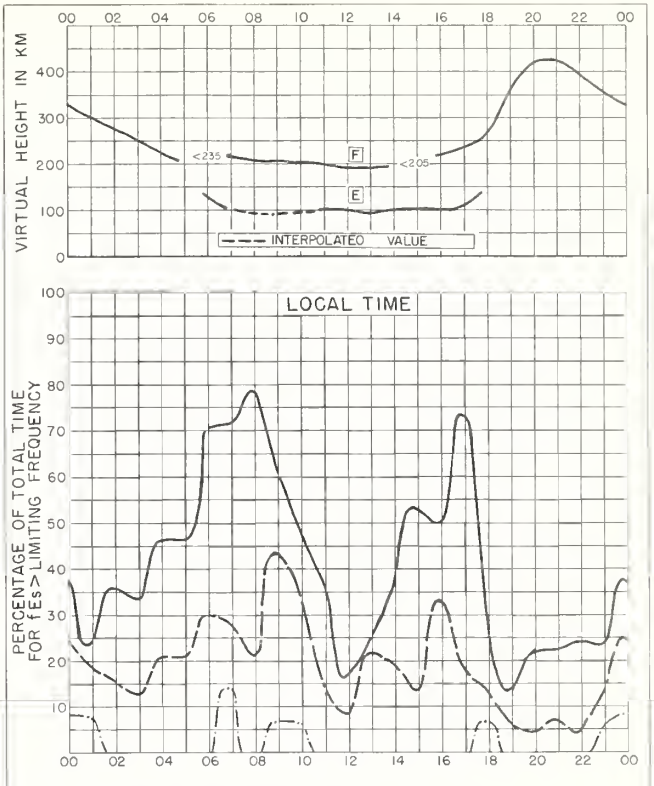


Fig. 98. DAKAR, FRENCH W. AFRICA MAY 1958

NBS 490

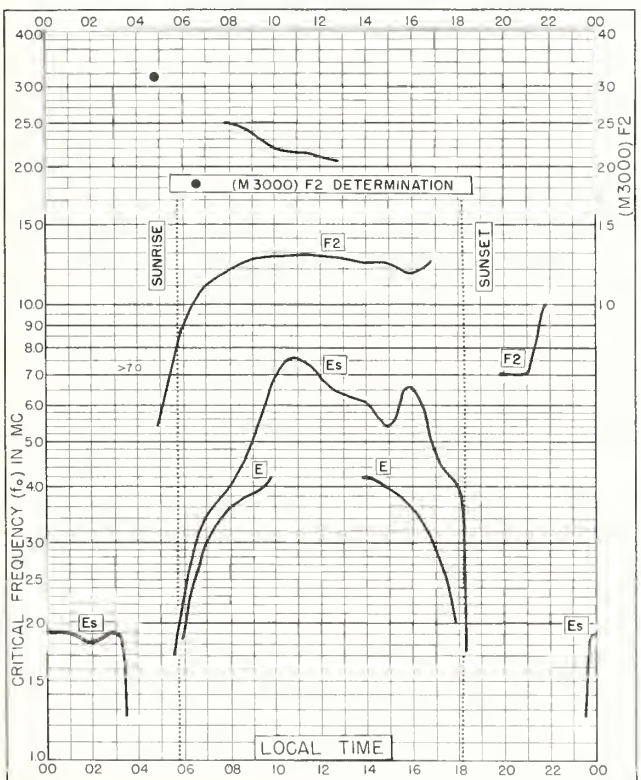


Fig. 99. DJIBOUTI, FRENCH SOMALILAND
11.6°N, 43.2°E MAY 1958

NBS 503

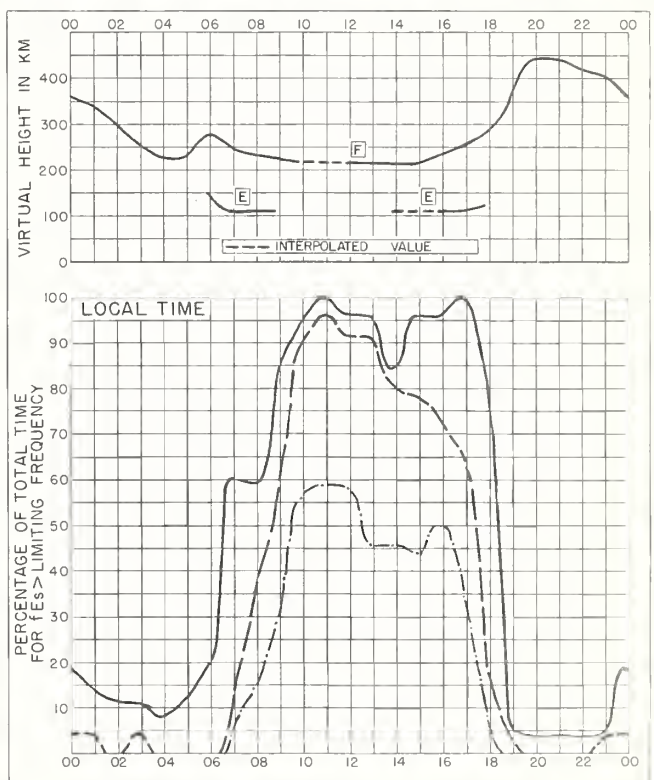


Fig. 100. DJIBOUTI, FRENCH SOMALILAND MAY 1958

NBS 490

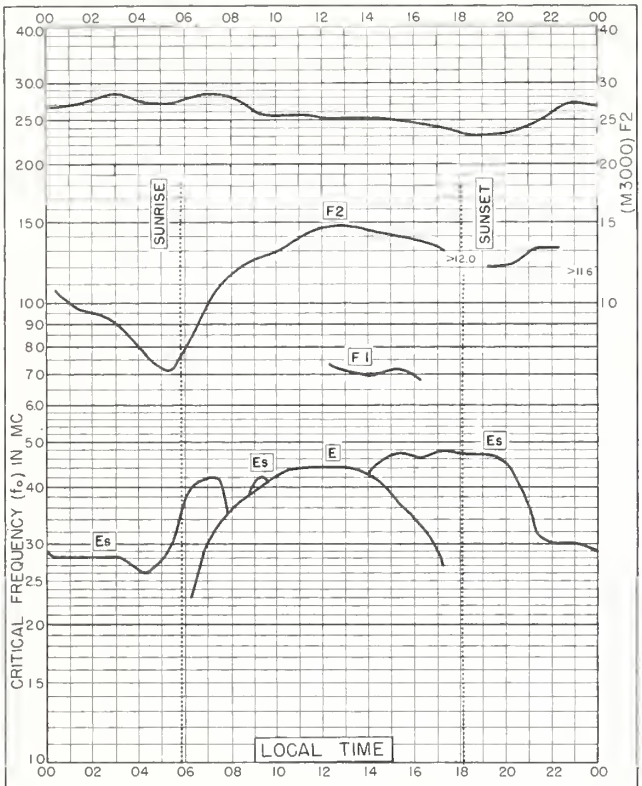
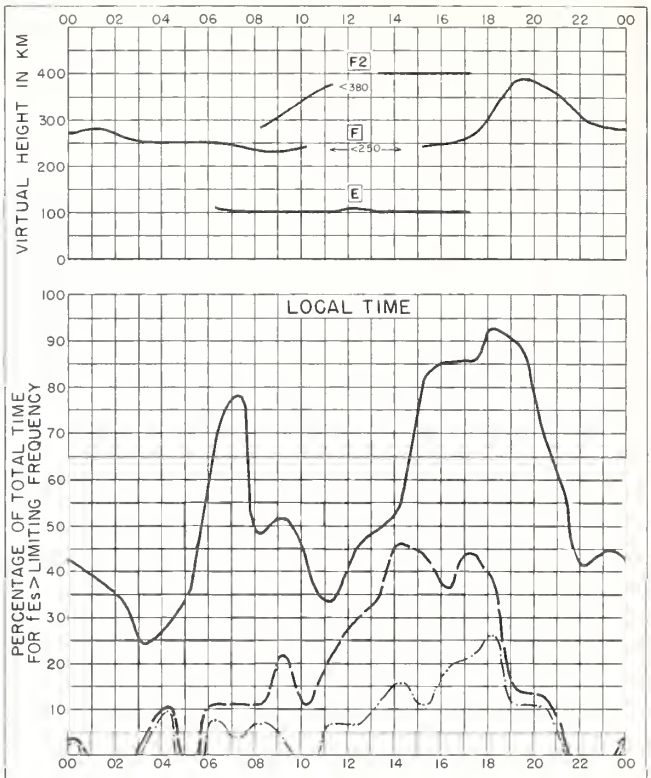


Fig. 101. PARAMARIBO, SURINAM
5.8°N, 55.2°W MAY 1958

NBS 503



—— LIMITING FREQUENCY = 3 Mc.
— — LIMITING FREQUENCY = 5 Mc
—·— LIMITING FREQUENCY = 7 Mc.

Fig. 102. PARAMARIBO, SURINAM MAY 1958

NBS 490

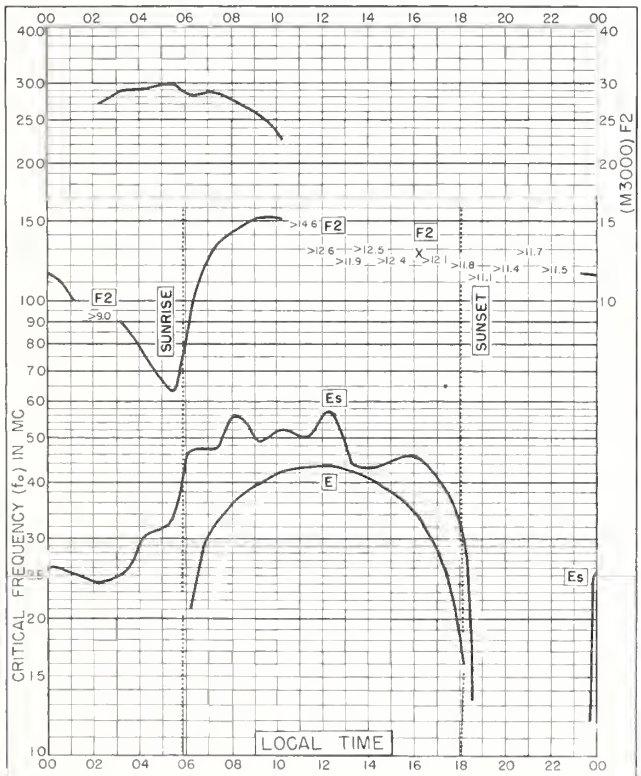


Fig. 103. BANGUI, FRENCH EQUATORIAL AFRICA
4.6°N, 18.6°E MAY 1958

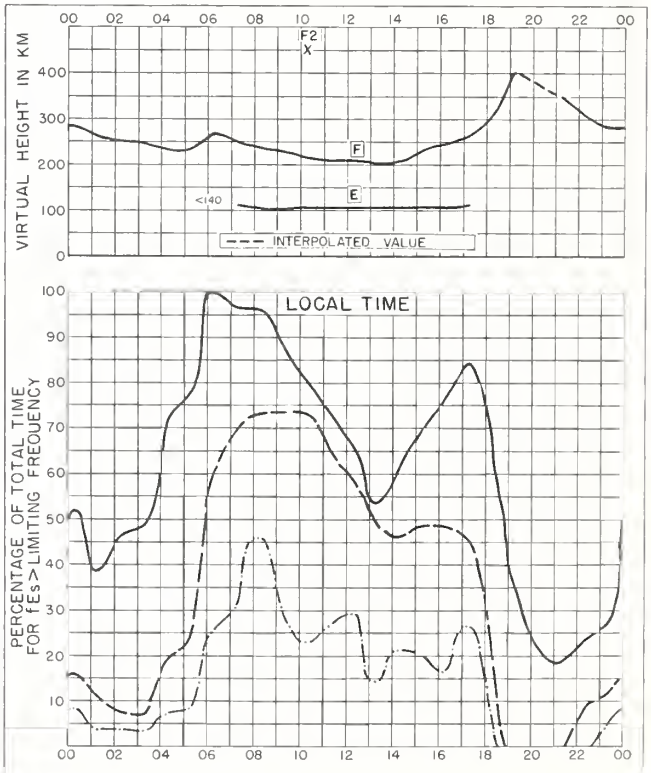


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Fig. 104. BANGUI, FRENCH EQUATORIAL AFRICA MAY 1958

NBS 490

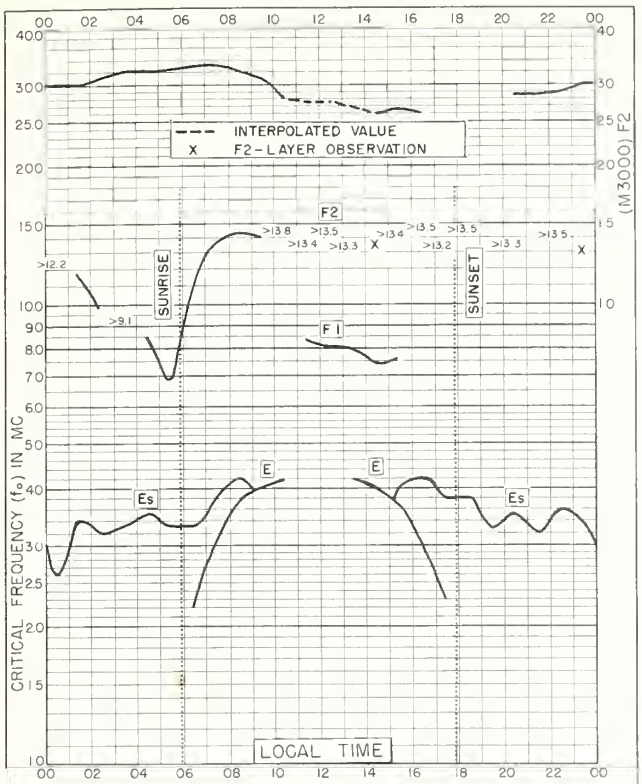


Fig. 105. HOLLANDIA, NETHERLANDS NEW GUINEA
2.5°S, 140.8°E MAY 1958

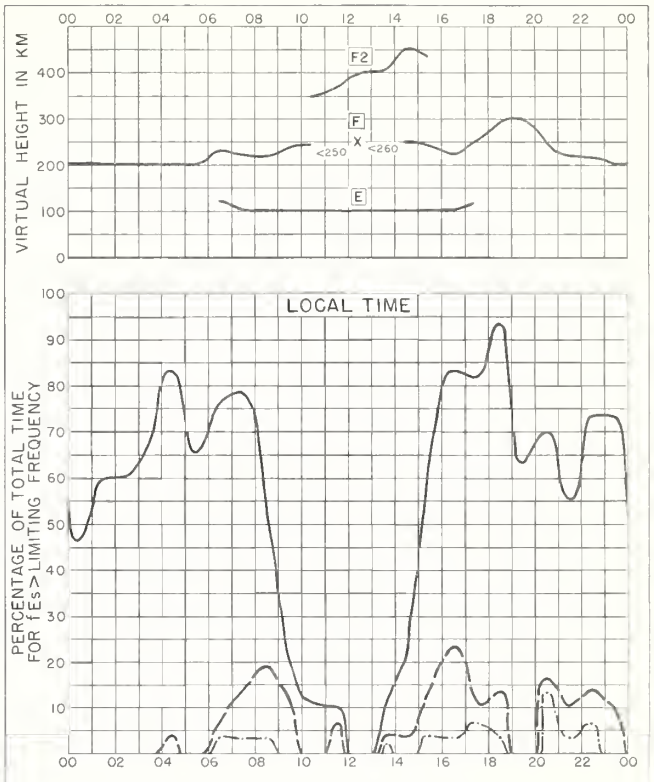


Fig. 106. HOLLANDIA, NETHERLANDS NEW GUINEA MAY 1958

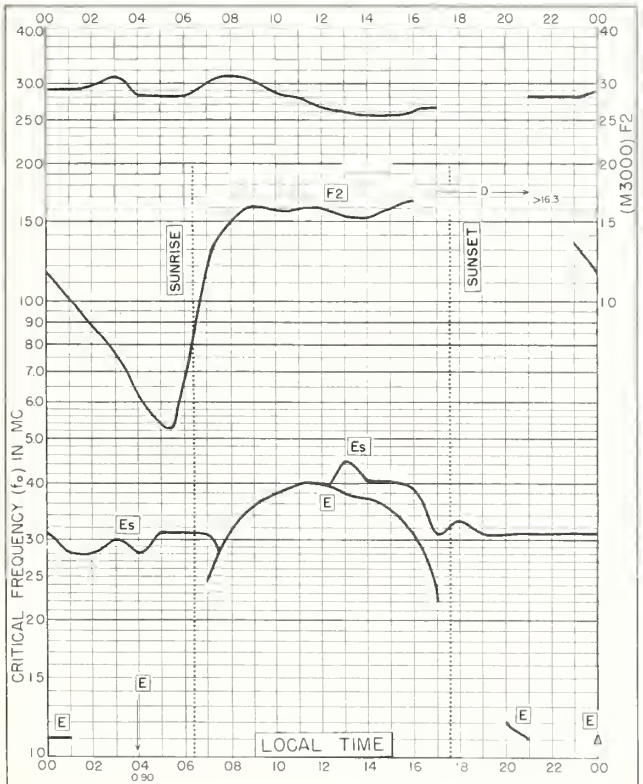


Fig. 107. TAHITI, SOCIETY IS.
17.7°S, 149.3°W MAY 1958

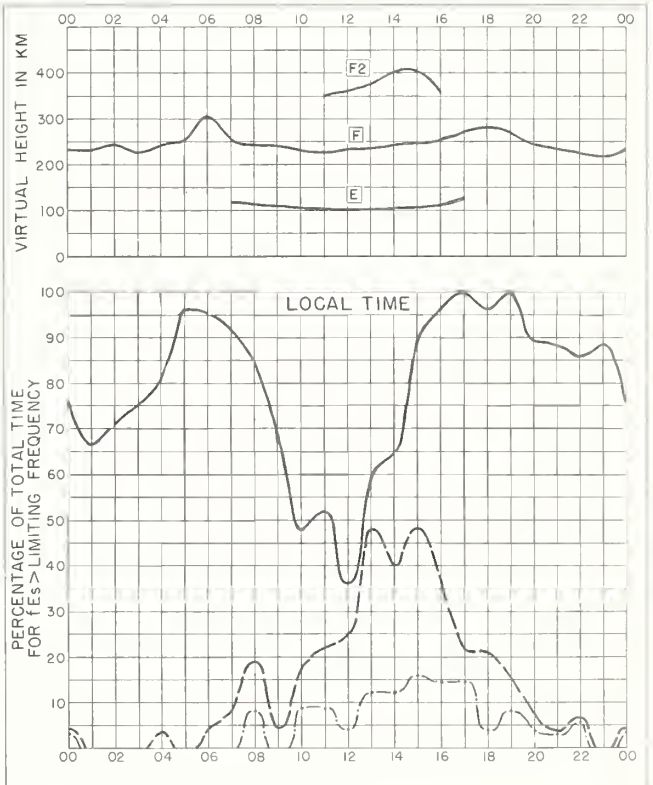


Fig. 108. TAHITI, SOCIETY IS. MAY 1958

Fig. 109. TANANARIVE, MADAGASCAR
18.8°S, 47.5°E MAY 1958

NBS 503

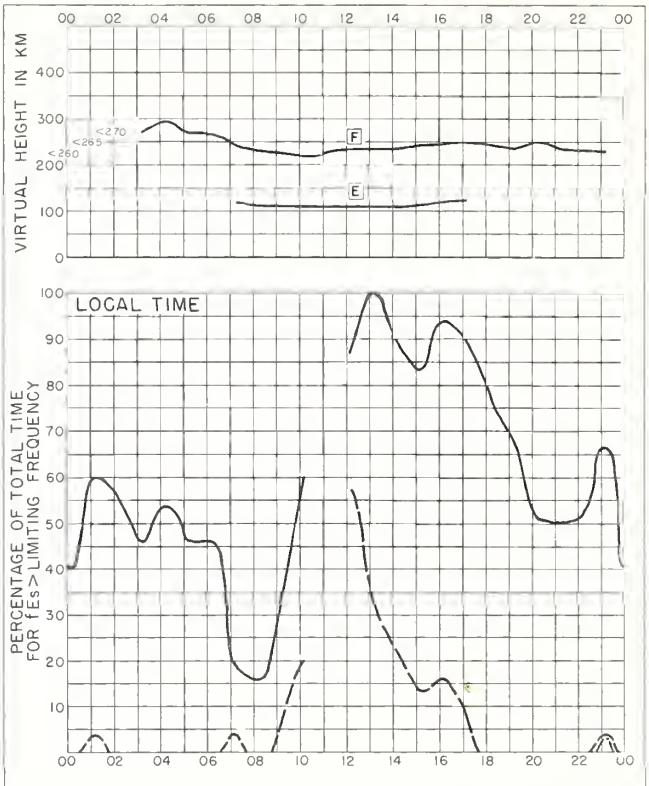


Fig. 110. TANANARIVE, MADAGASCAR MAY 1958

NBS 490

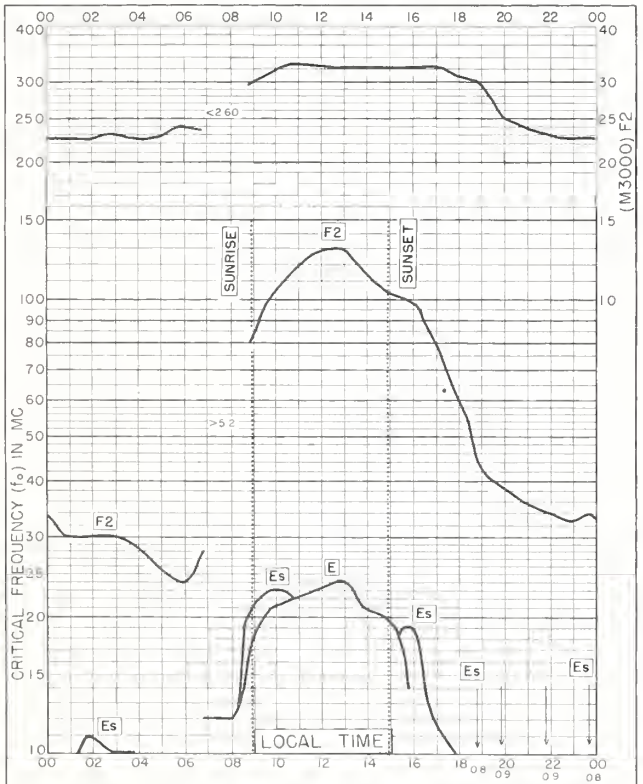


Fig. III. PORT LOCKROY
64.8°S, 63.5°W MAY 1958

NBS 503

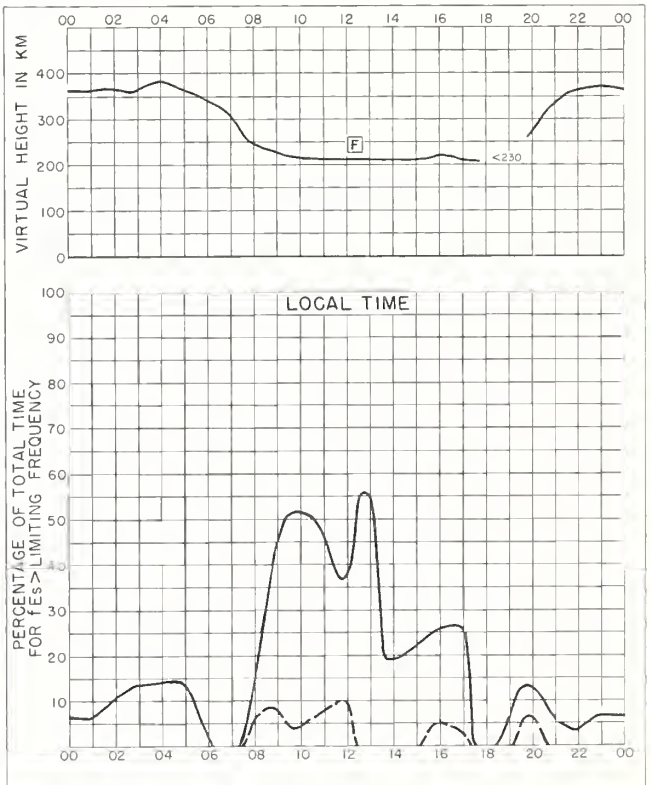


Fig. 112. PORT LOCKROY MAY 1958

NBS 490

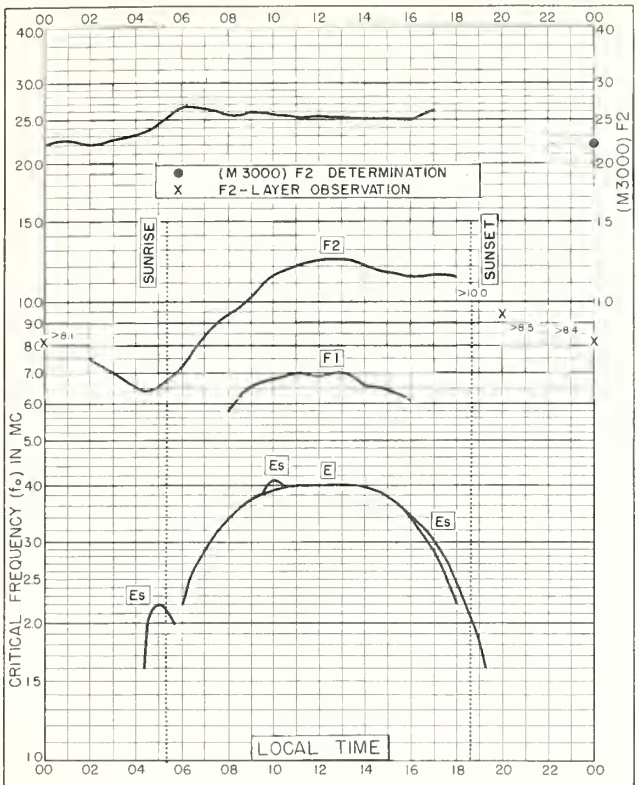


Fig. 113. POITIERS, FRANCE
46.6°N, 0.3°E APRIL 1958

NBS 503

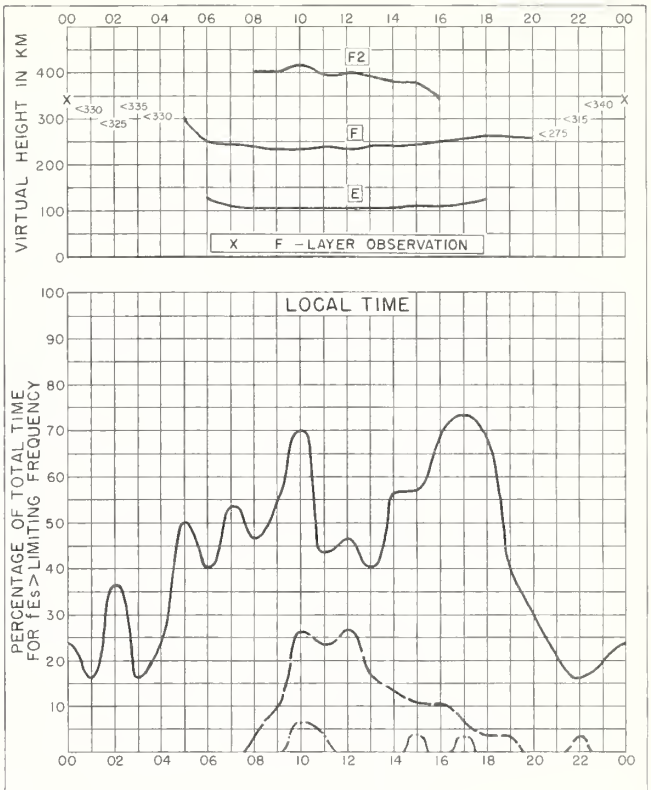


Fig. 114. POITIERS, FRANCE APRIL 1958

NBS 490

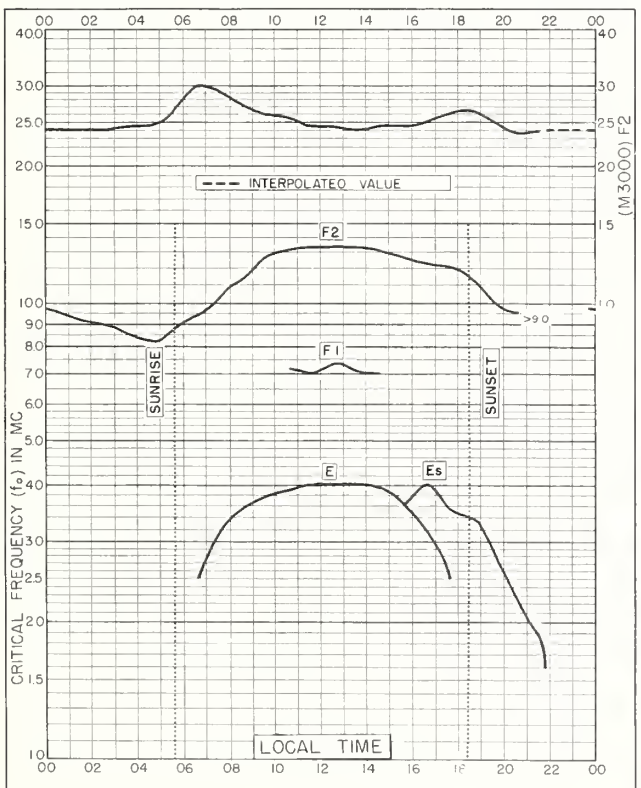


Fig. 115. RABAT, MOROCCO
30.9°N, 6.8°W APRIL 1958

NBS 503

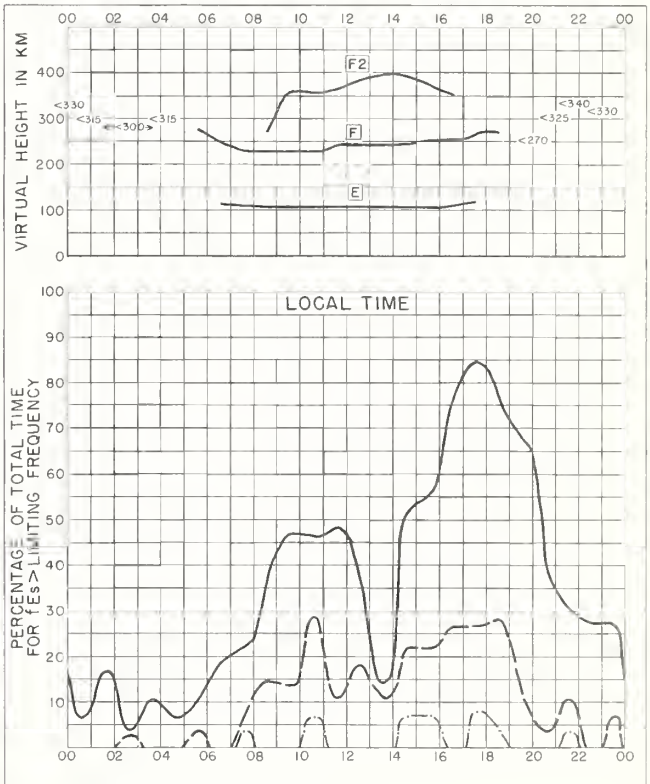


Fig. 116. RABAT, MOROCCO APRIL 1958

NBS 490

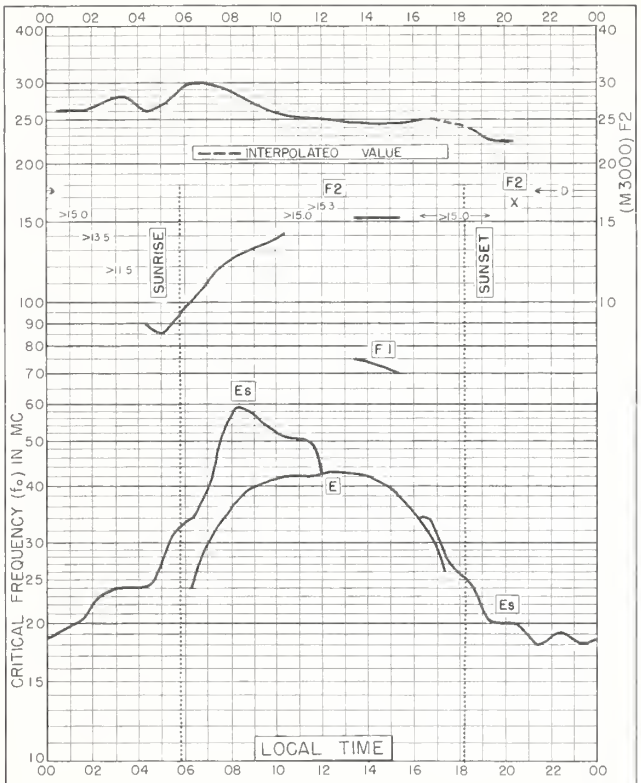


Fig. 117. TAMANRASSET, FRENCH W. AFRICA
22.8°N, 5.5°E APRIL 1958

NBS 503

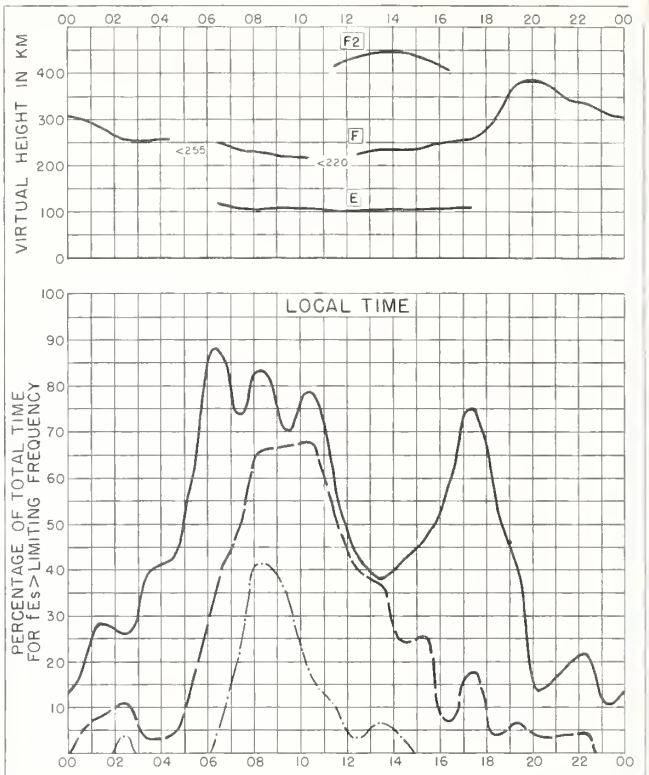


Fig. 118. TAMANRASSET, FRENCH W. AFRICA APRIL 1958

NBS 490

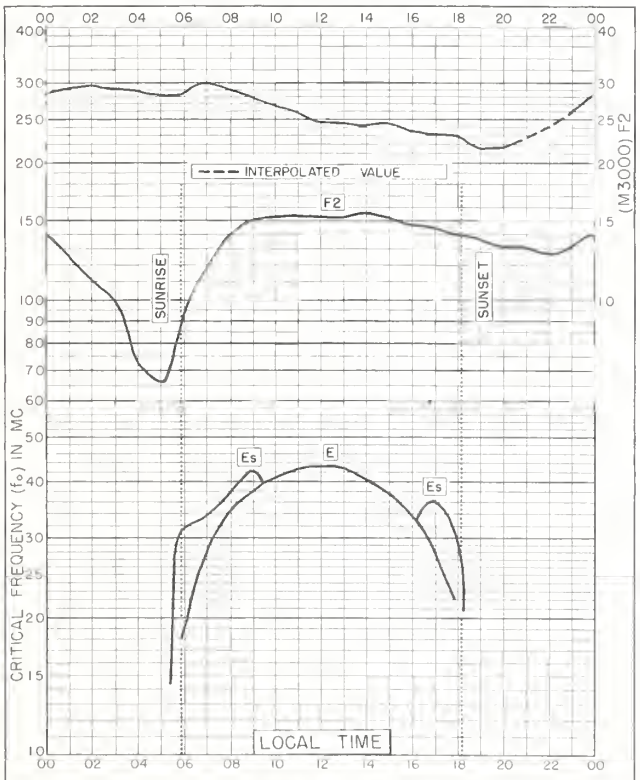


Fig. 119. DAKAR, FRENCH W. AFRICA
14.7°N, 17.4°W APRIL 1958

NBS 503

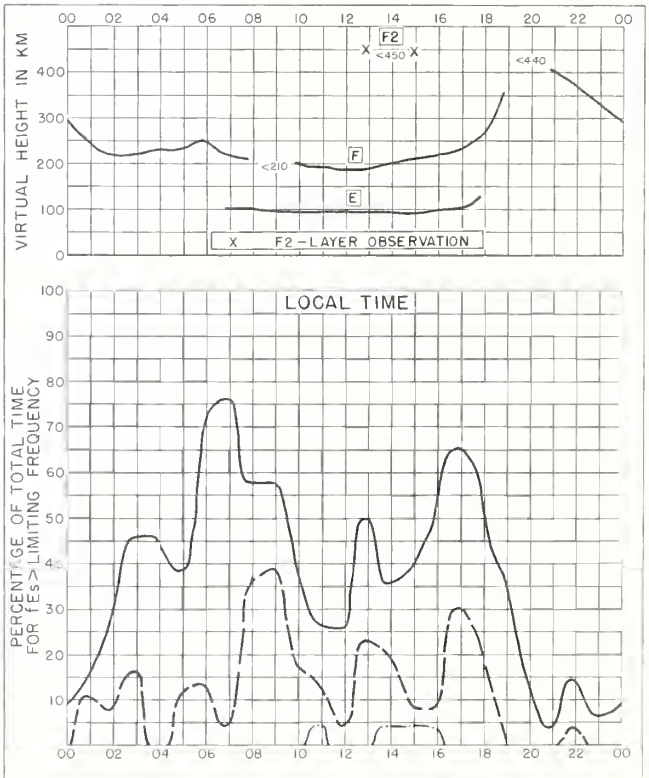


Fig. 120. DAKAR, FRENCH W. AFRICA APRIL 1958

NBS 490

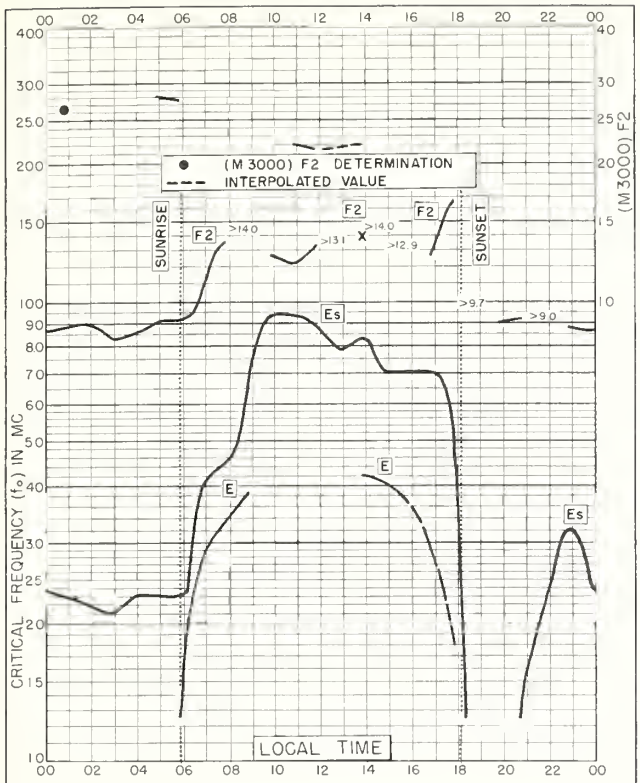
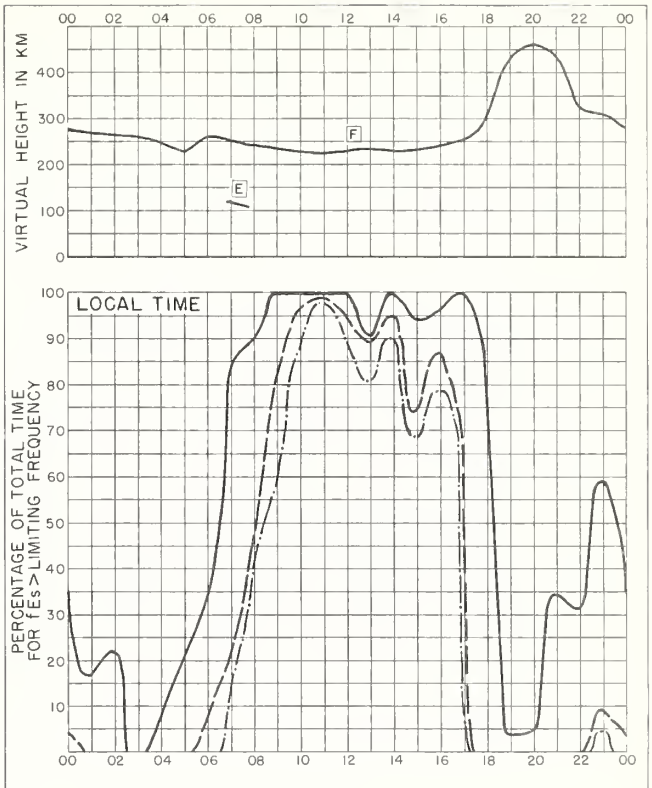


Fig. 121. DJIBOUTI, FRENCH SOMALILAND
11 6°N, 43.2°E APRIL 1958

NBS 503



APRIL 1958

Fig. 122. DJIBOUTI, FRENCH SOMALILAND

NBS 490

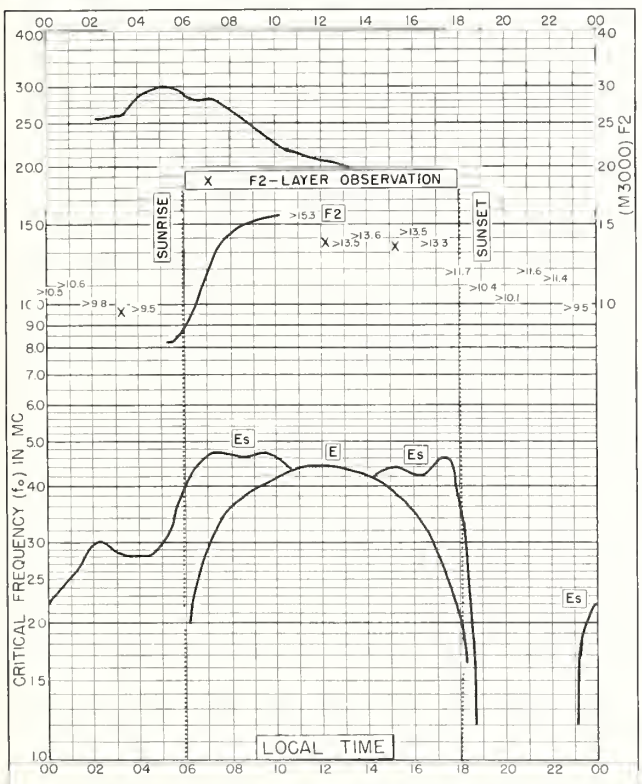
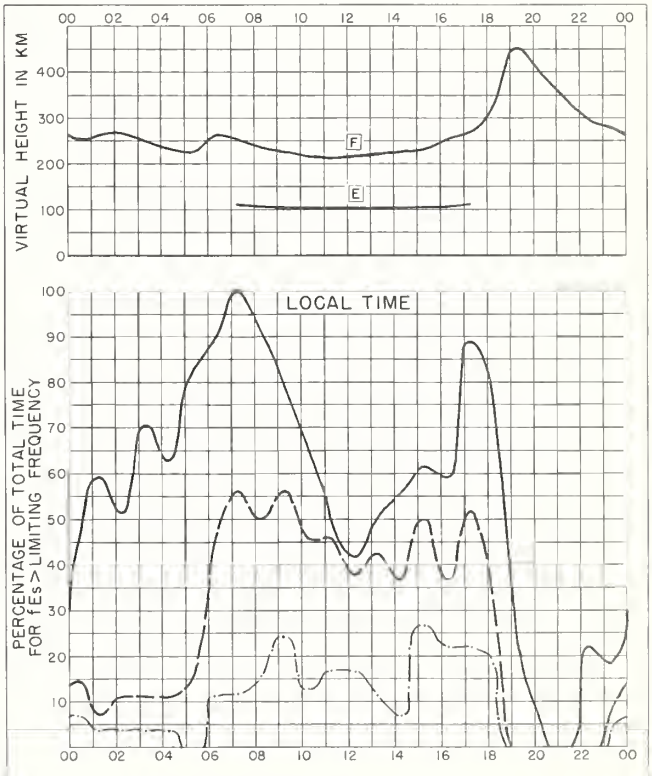


Fig. 123. BANGUI, FRENCH EQUATORIAL AFRICA
4.6°N, 18.6°E APRIL 1958

NBS 503



APRIL 1958

Fig. 124. BANGUI, FRENCH EQUATORIAL AFRICA

NBS 490

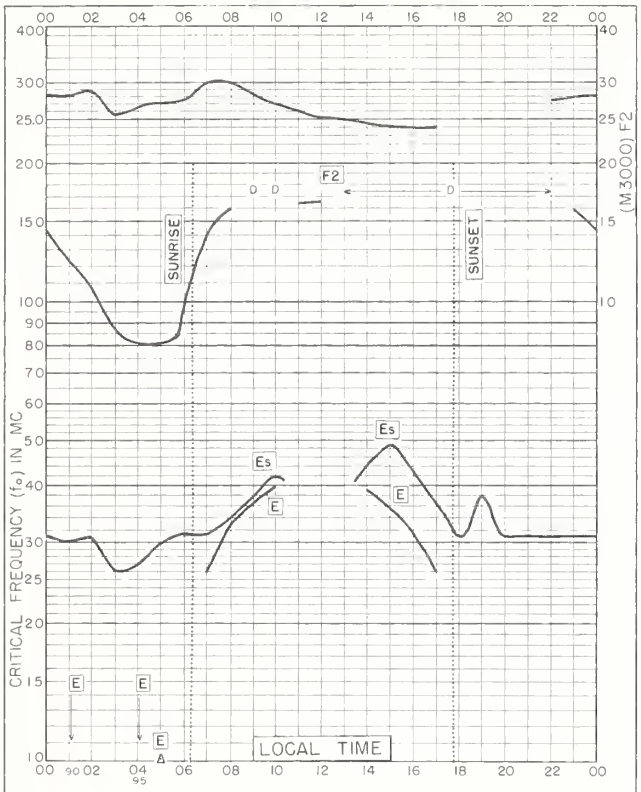


Fig. 125. TAHITI, SOCIETY IS.
17.7°S, 149.3°W APRIL 1958

NBS 503

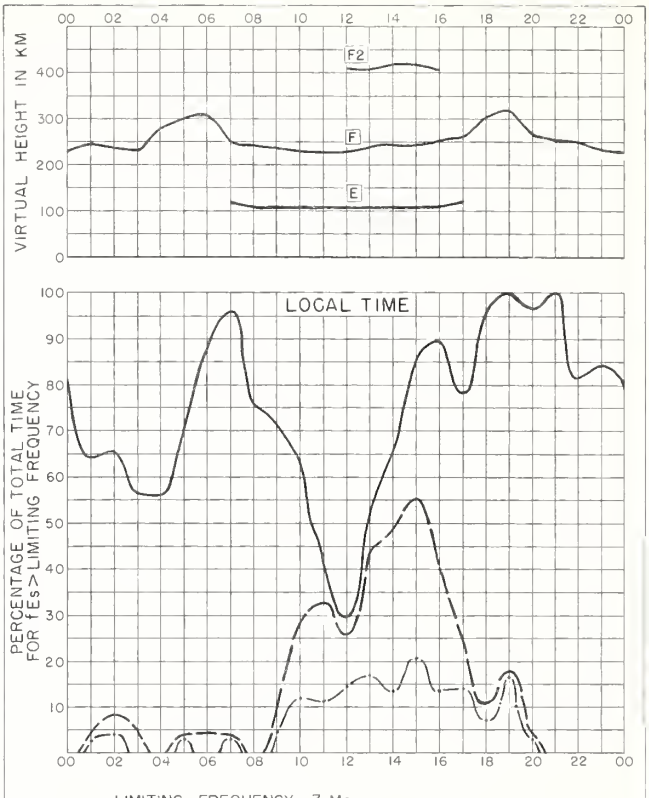


Fig. 126. TAHITI, SOCIETY IS. APRIL 1958

NBS 490

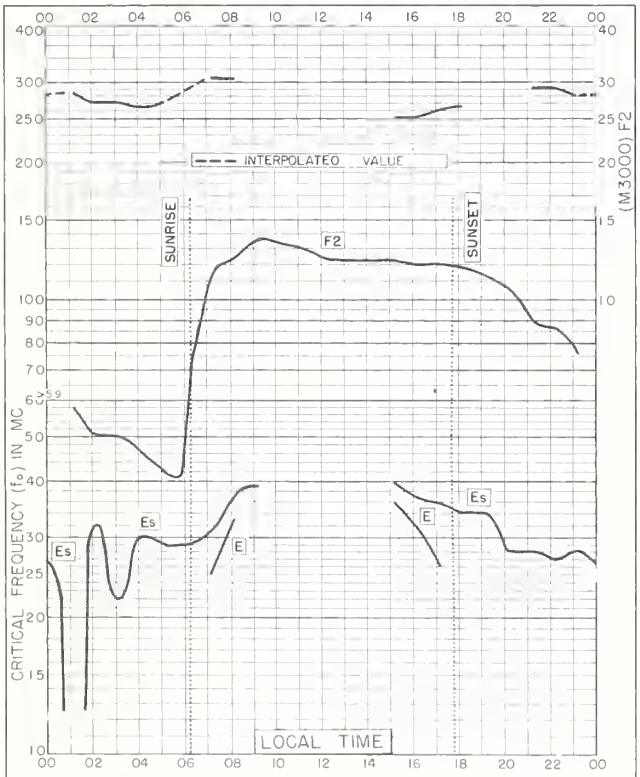


Fig. 127. TANANARIVE, MADAGASCAR
18.8°S, 47.5°E APRIL 1958

NBS 503

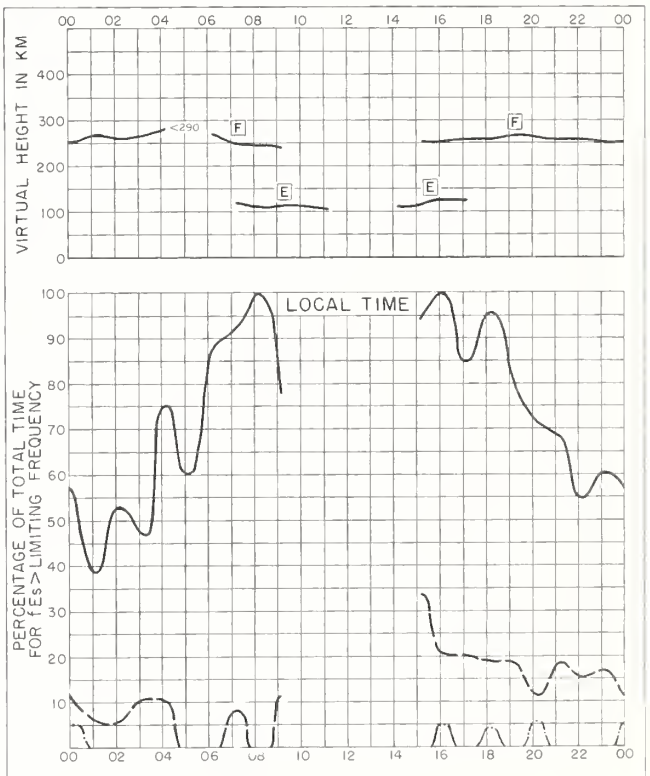


Fig. 128. TANANARIVE, MADAGASCAR APRIL 1958

NBS 490

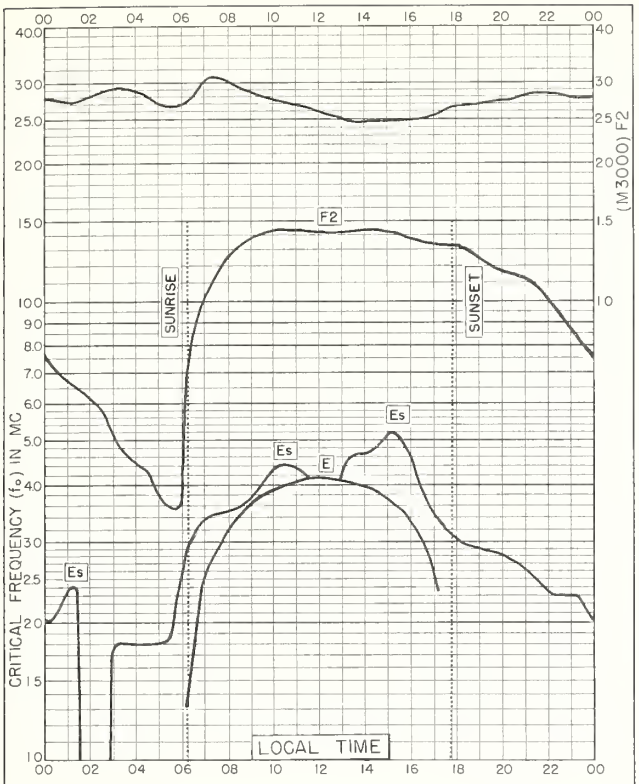


Fig. 129. TSUMEB, SOUTH W. AFRICA
19.2°S, 17.7°E APRIL 1958

NBS 503

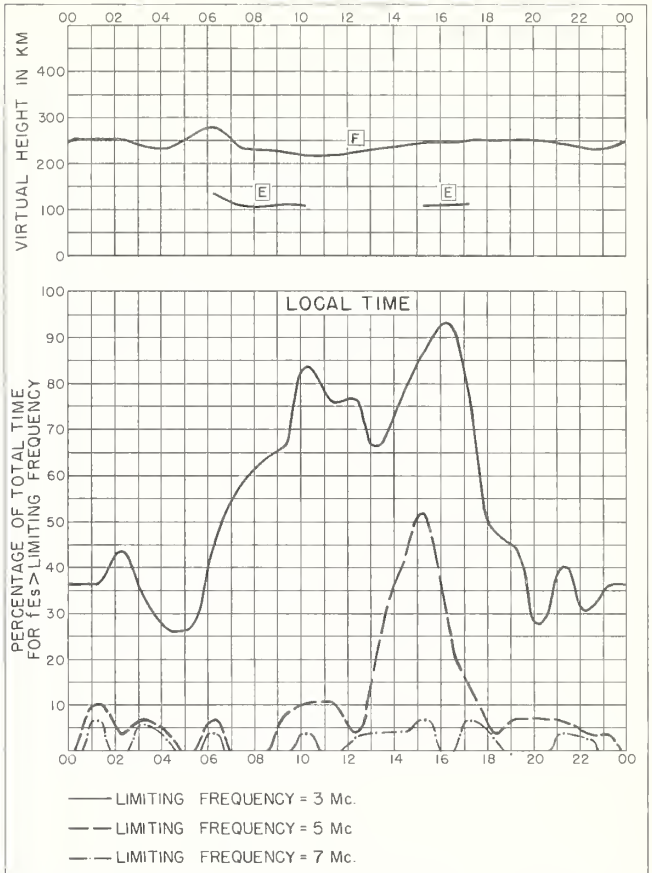


Fig. 130. TSUMEB, SOUTH W. AFRICA APRIL 1958

NBS 490

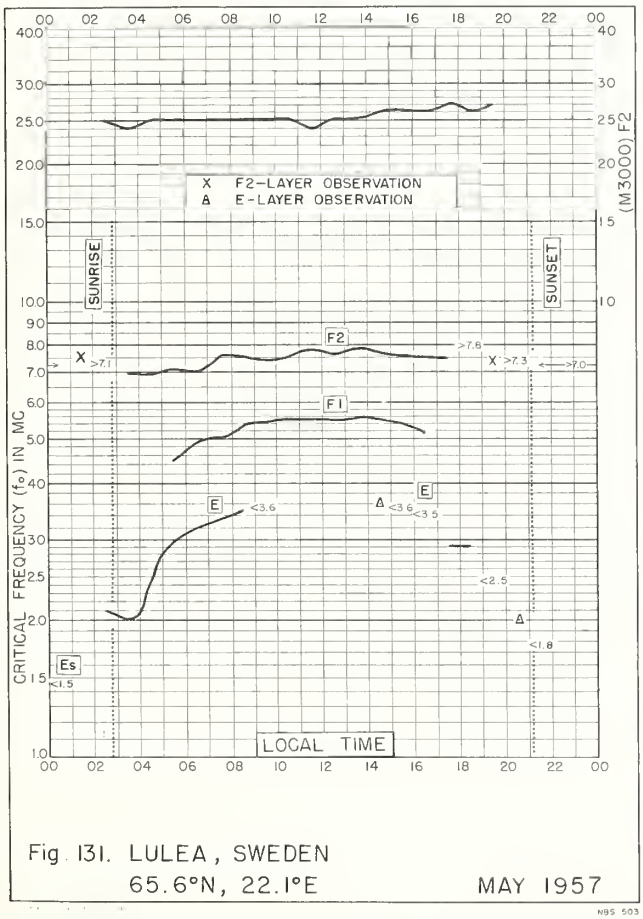


Fig. 131. LULEA, SWEDEN
65.6°N, 22.1°E MAY 1957

NBS 503

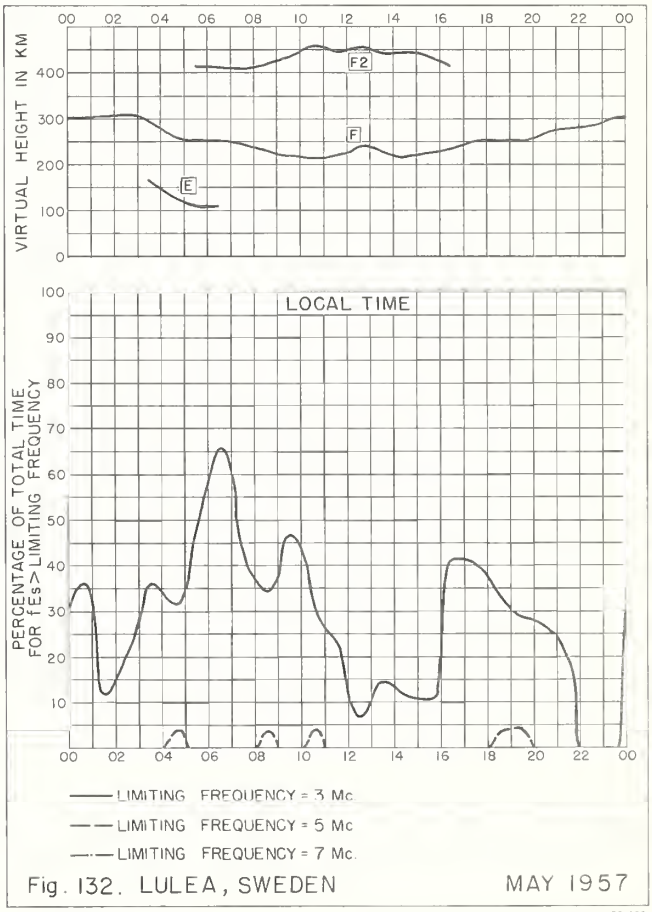


Fig. 132. LULEA, SWEDEN MAY 1957

NBS 490

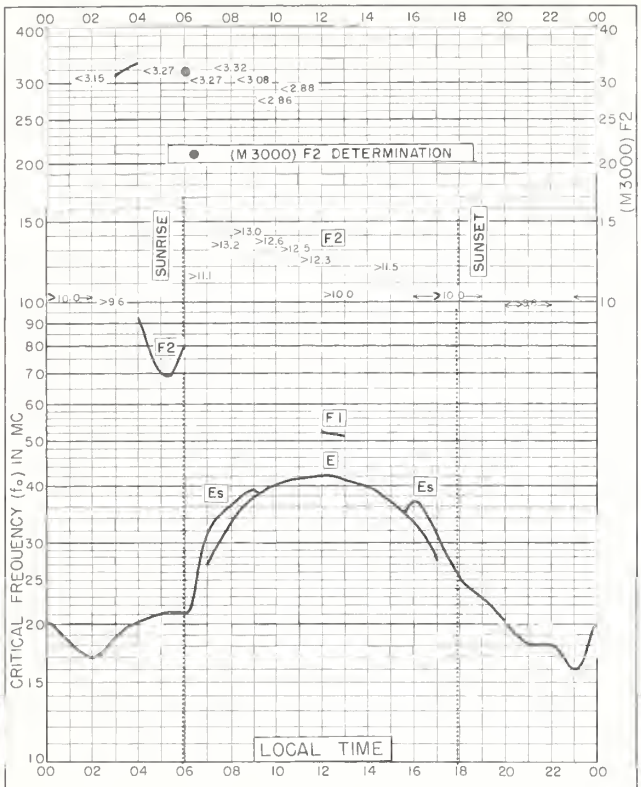


Fig. 133. LWIRO, BELGIAN CONGO
2.3°S, 28.8°E MAY 1957

NBS 503

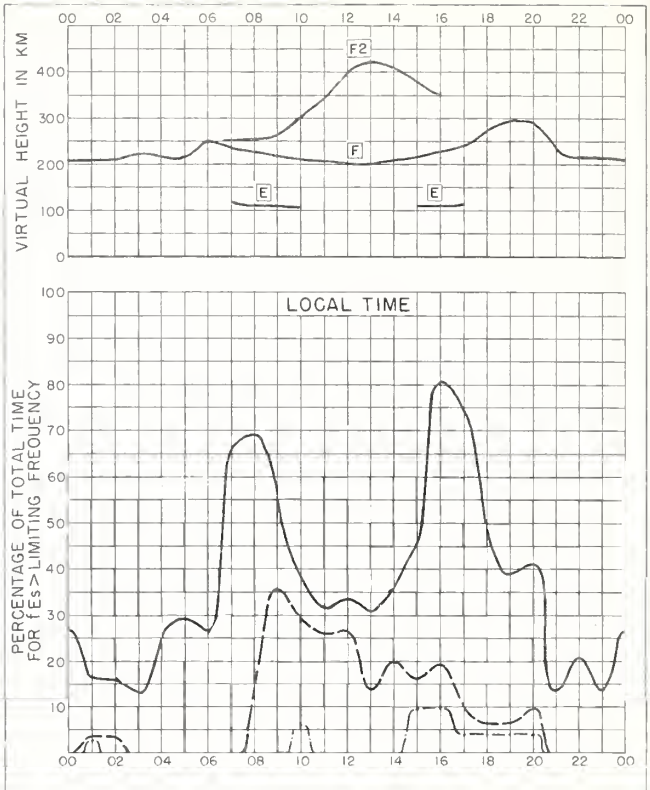


Fig. 134. LWIRO, BELGIAN CONGO MAY 1957

NBS 490

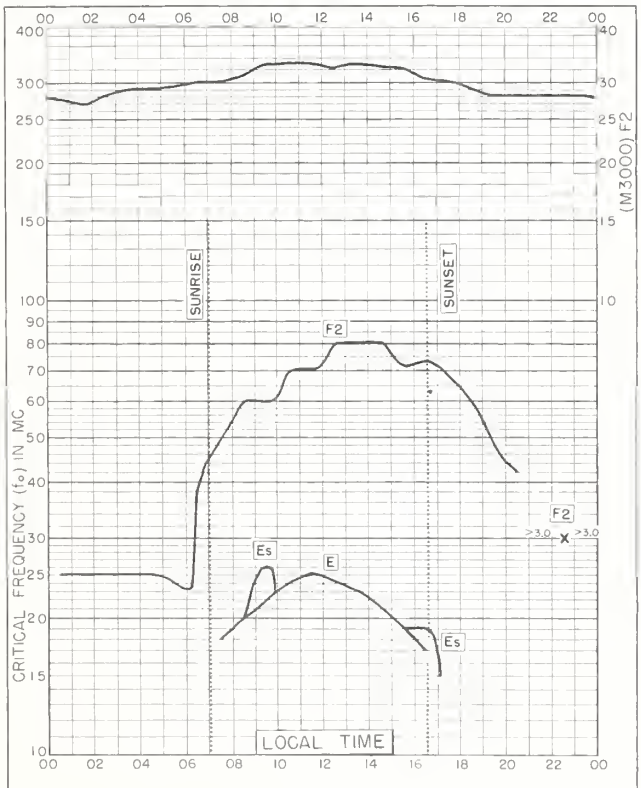


Fig. 135. LULEA, SWEDEN
65.6°N, 22.1°E OCTOBER 1955

NBS 503

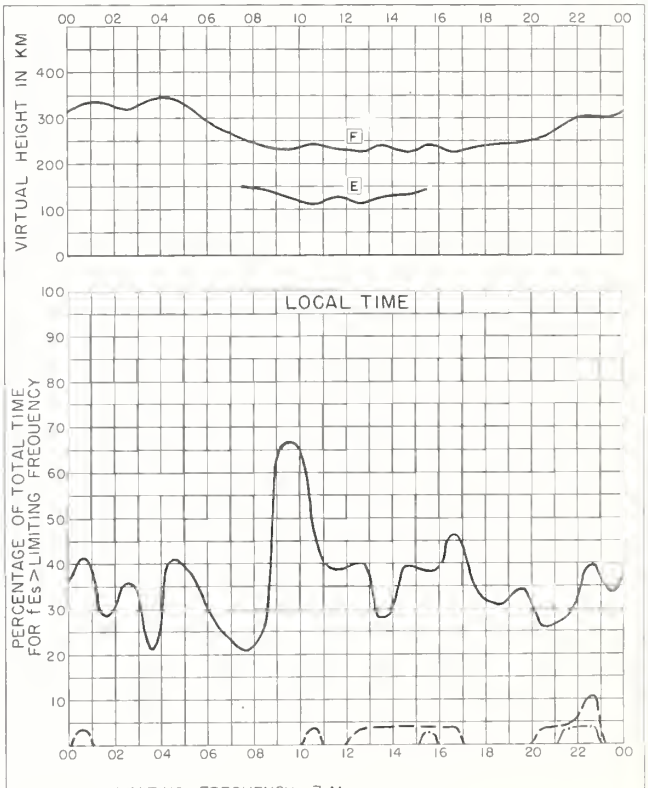


Fig. 136. LULEA, SWEDEN OCTOBER 1955

NBS 490

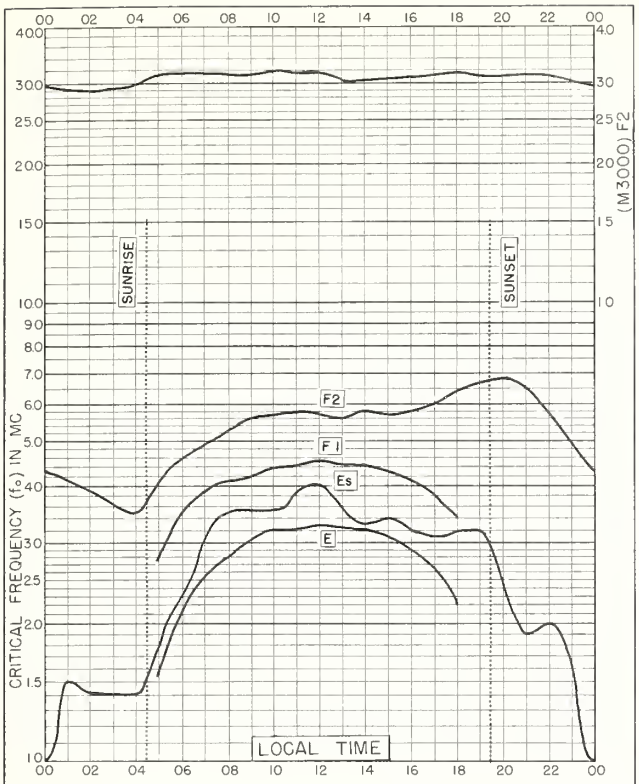


Fig. 137. FREIBURG, GERMANY
48.1°N, 7.8°E MAY 1955

NBS 503

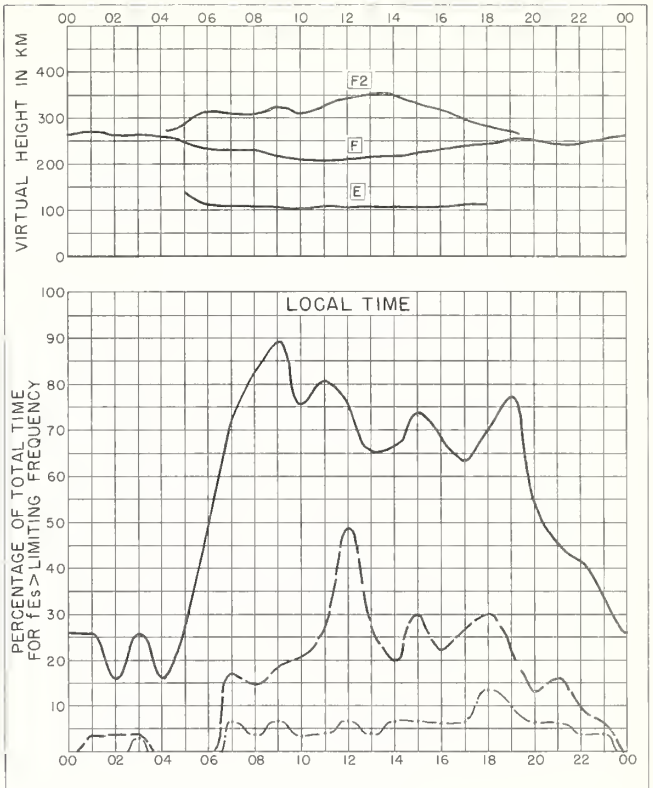


Fig. 138. FREIBURG, GERMANY MAY 1955

NBS 490

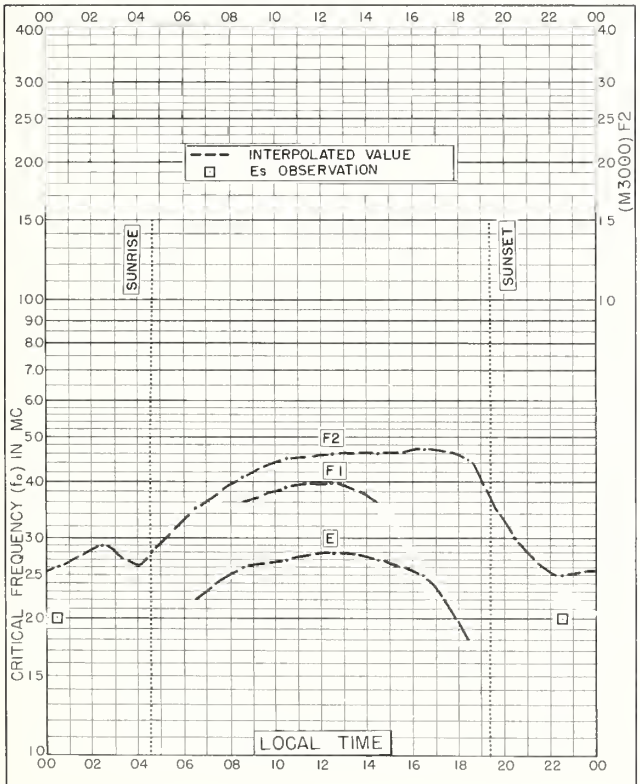


Fig. 139. LULEA, SWEDEN
65.6°N, 22.1°E APRIL 1953

NBS 503

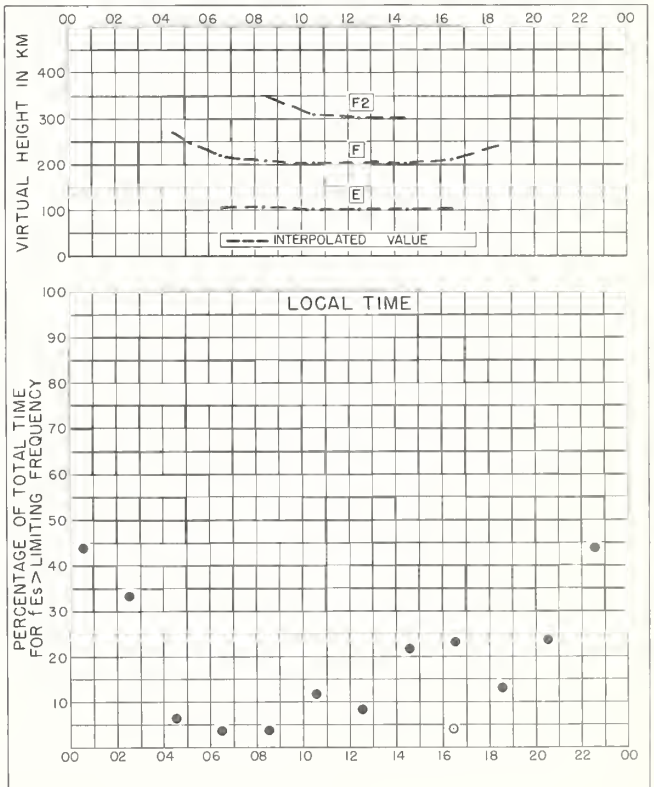


Fig. 140. LULEA, SWEDEN APRIL 1953

NBS 490

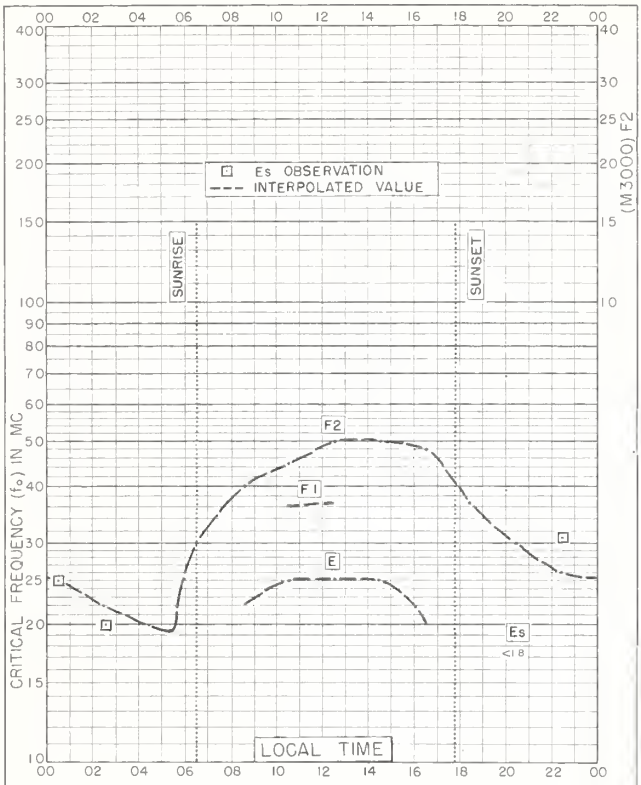


Fig. 141. LULEA, SWEDEN
65.6°N, 22.1°E MARCH 1953

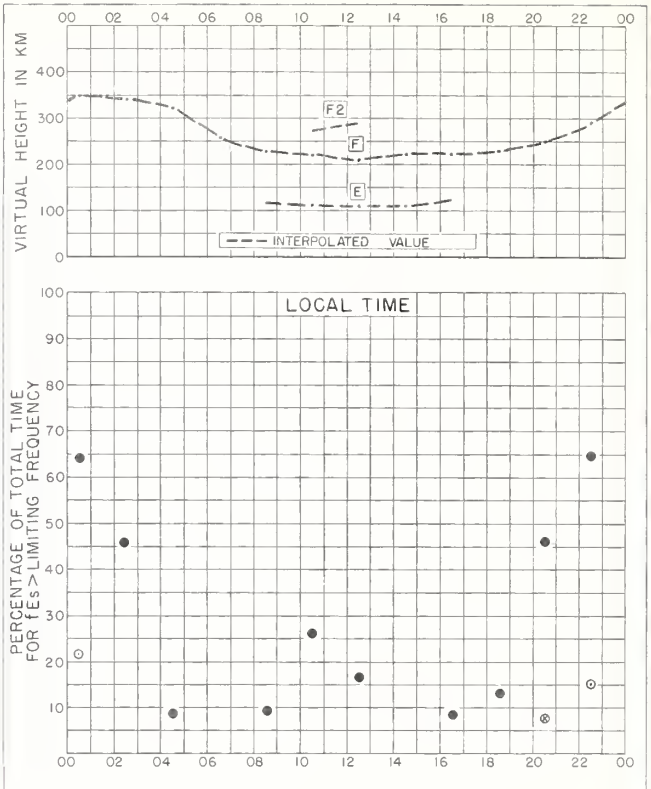


Fig. 142. LULEA, SWEDEN MARCH 1953

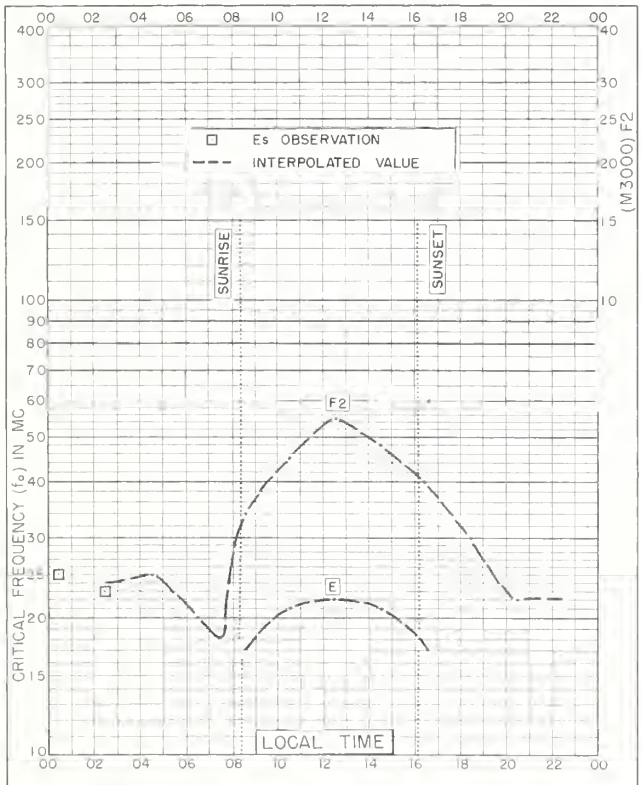


Fig. 143. LULEA, SWEDEN
65.6°N, 22.1°E FEBRUARY 1953

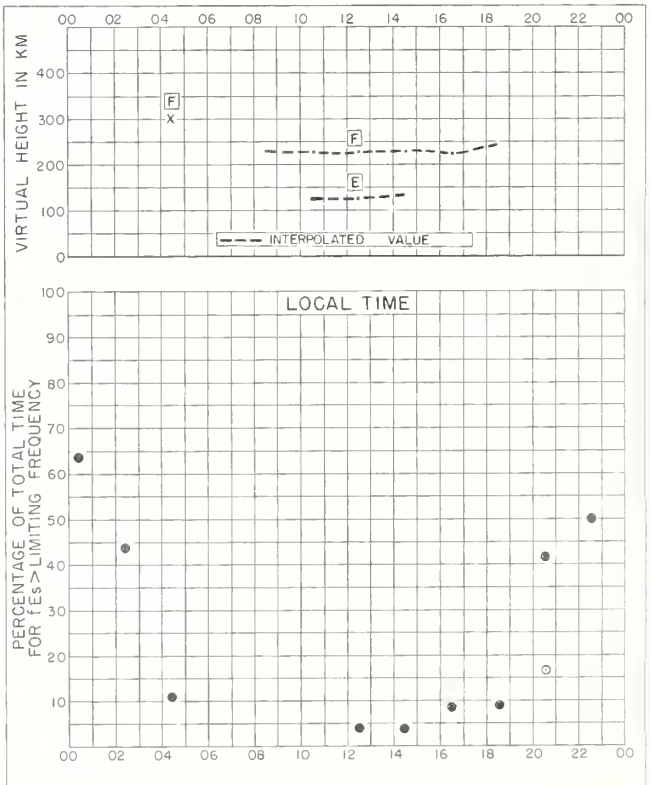


Fig. 144. LULEA, SWEDEN FEBRUARY 1953

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Index (CRPL-F197 (Part A), continued)

Index (CRPL-F197 (Part A), concluded)

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CRPL—F. (Part A). Ionospheric Data.
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Limited distribution. These publications are in general disseminated only to those individuals or scientific organizations which collaborate in the exchange of ionospheric, solar, geomagnetic, or other radio propagation data.

Catalog of Data:

A catalog of records and data on file at the U. S. IGY World Data Center A for Airglow and Ionosphere, Boulder Laboratories, National Bureau of Standards, which includes a fee schedule to cover the cost of supplying copies, is available upon request.

The publications listed above may be obtained without charge from the Central Radio Propagation Laboratory, National Bureau of Standards, Boulder Laboratories, Boulder, Colorado, unless otherwise indicated. Please note that the F series is not generally available.

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